

Backwoods Survival Guide®

PRACTICAL ADVICE FOR THE SIMPLE LIFE

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ESSENTIAL TIPS

PRODUCT
REVIEWS

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NEW
GEAR**

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WILDERNESS SKILLS
HOMESTEADING NECESSITIES

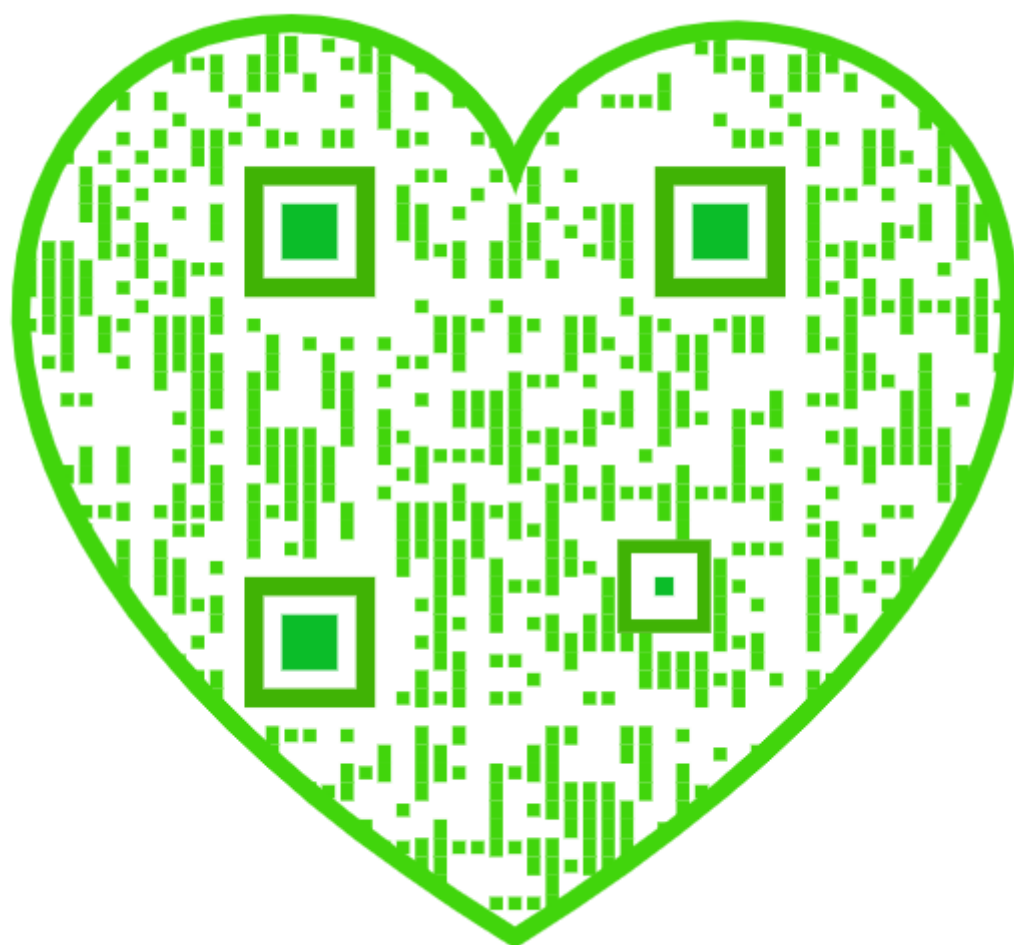
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Backwoods Survival Guide[®]

PRACTICAL ADVICE FOR THE SIMPLE LIFE

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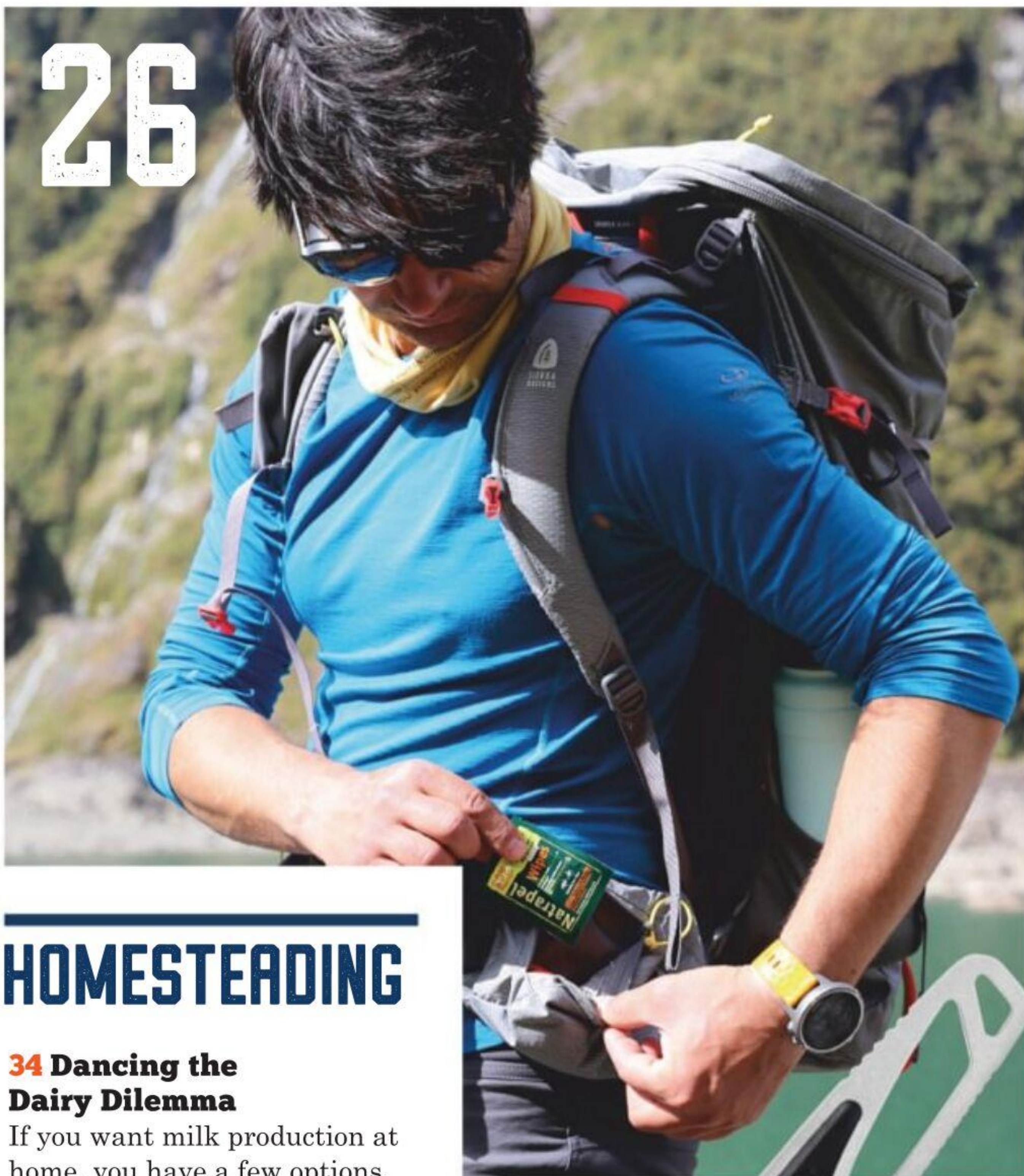
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These new blades from Reiff Knives are definitely worth a look.

For submission information or other editorial queries, please email Jim Cobb at jim@survivalweekly.com. We're always looking for new products to feature in our magazines.

Letter From the Editor

Welcome to issue No. 31! I might be biased, but I truly believe we have some of the best contributors in the industry. They're experienced and knowledgeable, and they know how to teach their skill sets, which is vitally important. We're truly honored to have them sharing their articles with us.

Here's just some of what you'll find in this issue. Reuben Bolieu shares some great information and insight on how to teach wilderness skills to children of all ages. Christopher Nyerges showcases several plants that can help us maintain good hygiene in the field. Angeline Hawkes has a great piece on growing potatoes.

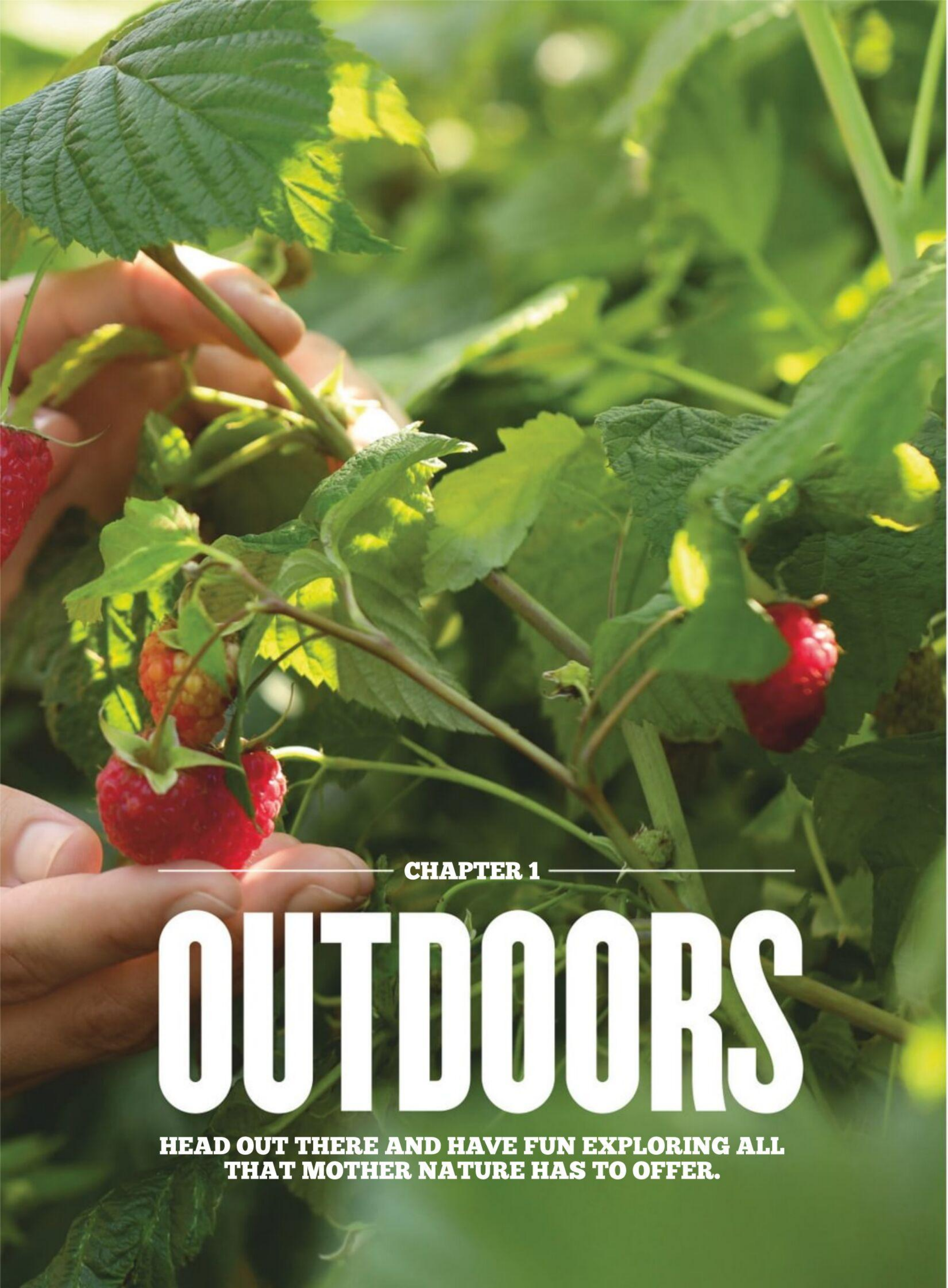
We also have articles on canning meat, using chopping tools, choosing dairy animals, how to get started with hydroponic gardening, and how to find food in the wild. As always, the goal is to provide practical information our readers can put to use.

Welcome to the Backwoods!

»»» JIM COBB «««

The advice given in this magazine is the opinion of the author of each article based on their personal experiences and knowledge. The right response to a disaster may not be the same in all situations. Articles are for informational purposes only. The publisher accepts no responsibility for injuries or liability arising from relying upon information contained herein. In the event of an emergency, follow the advice of first responders and trained professionals. Have a preparedness plan researched from multiple sources and avoid high-risk situations. Follow all applicable federal, state and local laws for firearm ownership, carry and usage.





CHAPTER 1

OUTDOORS

**HEAD OUT THERE AND HAVE FUN EXPLORING ALL
THAT MOTHER NATURE HAS TO OFFER.**



One of the fun challenges for families is the “fire challenge,” where the first group to burn through the cord wins.



START THEM YOUNG

The key to passing on essential skills



BY REUBEN BOLIEU



FOR WELL OVER A DECADE AND A HALF, I'VE HAD THE OPPORTUNITY TO TEACH WILDERNESS SURVIVAL SKILLS TO SEVERAL GROUPS, INCLUDING LAW ENFORCEMENT, FORMER AND CURRENT MILITARY PERSONNEL, PARK RANGERS, SCOUT DADS, AND EVERYDAY JOES WORLDWIDE.

However, there's no greater responsibility than teaching the most elite future—kids!

Survival skills are a must for everyone. Knife skills are one piece of the puzzle. They're super important, so we must

spend time perfecting them. These skills are like a language—you lose them if you don't use them. It's essential to keep practicing. Starting with a class from a good survival school is a good idea, but that's just the beginning. We must

make many mistakes and keep practicing to get it right.

CUTS AND STITCHES

In all my years of teaching and assisting outdoor skills classes, I've yet to see a child get hurt with a blade badly enough to need stitches or visit a hospital. I can't say the same for adults. Why? It's simple. Newbies and young minds don't come with many bad habits. They're ready to learn and absorb information. Often, it's the older generations who think they know it all.

Beginners and kids don't come in with bad

habits. They aren't set in their ways like people who have done it before or are refreshing their skills. This same idea applies to teaching sports, musical instruments or cooking. The more open-minded a person is, the easier it will be for them to absorb information.

KNIFE SKILLS

So many aspects of wilderness skills revolve around knives. Knife skills are crucial for crafting things for camp, making fire, setting traps and preparing food. I emphasize knife skills and safety. I've been

fortunate to assist with a class run by Randall's Adventure & Training School in Gallant, Alabama, which involves both parents and children.

Upon the class commencing, the primary focus is on safety. Mastering the fundamentals is crucial for the success of this class, where any self-inflicted injuries could have severe consequences and even put an end to the class and the trip. The primary instructor, Patrick Rollins, teaches the basics of using a fixed blade, including how to safely remove it

from the sheath, where to grip it and what to watch out for. Paying careful attention to safely passing a knife is also emphasized, as accidents can occur more frequently than one might expect when sharing or passing knives to others. The concept of the "blood circle safety circle," which describes the area within the combined radius of the arm and the length of the blade, is also taught for using a knife or any cutting tools.

Additionally, the "blood triangle" is discussed as a method for being safe while using a knife while seated. Instructors ensure that students, regardless of age, understand not to use their bodies to support cutting in any way and to always avoid cutting toward arteries in the leg and the body.

THREE GRIPS TO MASTER

Teaching kids proper knife techniques at an early age is important, as these skills form the foundation for wilderness survival. While there are many knife techniques, I find that sticking to the simplest ones works best for about 90% of my outdoor projects. It's important to start slowly and master these techniques, as they are each equally valuable in the long run.



A student uses his newly made baton to help split a piece of wood for firecraft.

✖ Forehand (Fist) Grip

This grip is for power cutting, removing a lot of material to reduce wood and rough shape. The most basic, natural grip we use to secure things is a forehand grip. The knife is held with all fingers curled around the handle like a fist. The thumb is not on the spine. Lock your wrist and elbow, and move from the shoulder as if punching down through the floor. The basic motion looks like slowly shrugging your shoulder.

✖ Thumb-Assisted

Push Cut This grip is also known as a scissor grip cut. The wood and the knife mimic the scissors' appearance and movement from an overhead view. This one is a thumb-assisted push cut utilizing the non-cutting hand's thumb. The knife and wood hinge in a cutting motion (like scissors), using the thumb of the non-knife handle to push the back of the knife into the wood. It has a short cutting span, soft to medium power, and maximum control. A thumb-assisted push cut is a more controlled, detailed version of the chest-lever grip.

✖ Chest-Lever Grip

A grip and power cut, the chest-lever grip is a typical palm-up grip in bushcrafting. This is a powerful, controlled cut. It uses the lat muscles,



with the power coming from leveraging against the body. The blade is turned, facing out and away toward the right (if right-handed), with the palm facing up. Grip the knife, thumb on the handle or side of the blade while the other hand holds the work.

Once the edge makes contact where you want to cut, the shoulders are rotated forward, and the hands are then pulled apart by the shoulders opening up, leveraging against the torso. Note the hands are still connected to the ribs. Imagine a chicken

walking. The forehand and chest-lever grip provide powerful cuts for removing a lot of wood.

FIRE PROJECTS

The projects students in the parent-child class will work on are quite similar to



A young student cuts a pole to length for a baton while practicing the proper, safe use of a buck saw.

those taught in longer multiday classes. They will learn about traps, preparing fire by splitting wood, and carving notches using a fixed-blade knife and occasionally a saw. The one-stick fire technique involves creating fire using a single large piece of wood. To start, students learn to make a baton. While any sturdy stick can be used as a baton, there are valuable lessons to be learned from crafting one using a saw and another stick with some knife whittling. Participants take turns cutting their batons with a saw under the guidance of instructors. They then decide on the handle length and size of the striking surface and proceed to saw and baton the handle area before shaping and smoothing it with a knife. This creates their first functional tool, used with a fixed-blade knife to split wood for the one-stick fire. The wood is gradually split into pieces of varying thickness, and participants practice making feather sticks using finger-thick pieces. Creating feather sticks requires precision, starting with selecting the right wood portion and using a specific technique with the knife. The process is challenging for beginners, and mastery is not expected on the first day of the class.

**PARENTS WILL
OFTEN LEARN JUST
AS MUCH AS THE
STUDENTS IN EACH
CLASS!**



Learning to construct a shelter is a vital skill for youthful explorers to master.

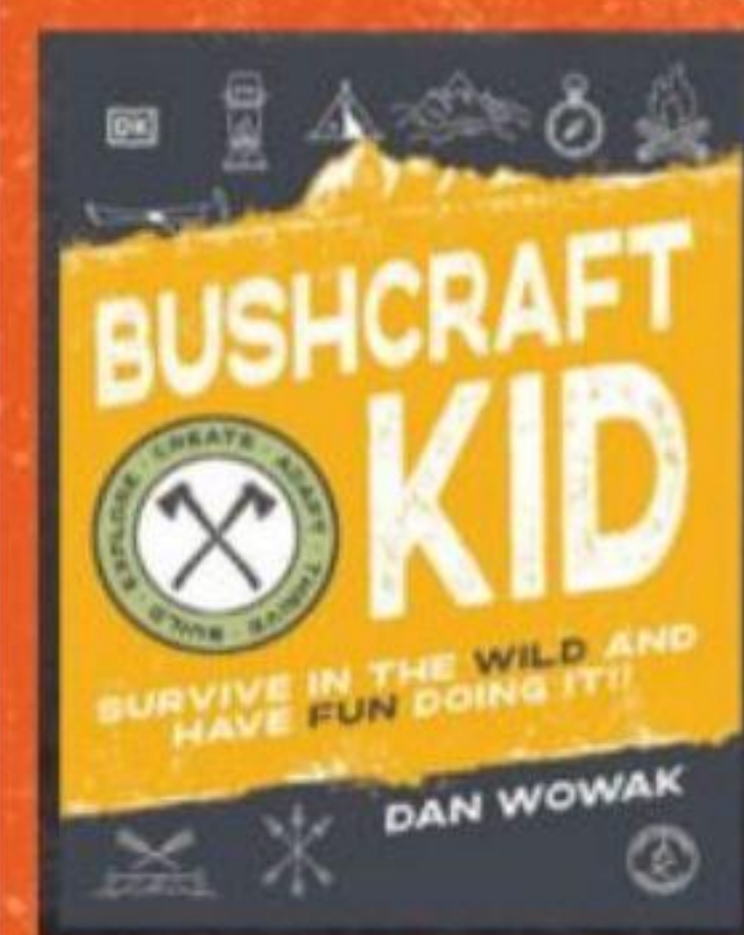
The bark from poplar wood is processed by shredding, with the option to use a knife with a sharp spine to shred it before splitting. During the class, students are taught various methods of using a ferrocerium rod with a knife or the provided striker to ignite poplar bark and other natural tinders. The students try their luck; if they are good, they can light feather sticks with a ferro rod.

We should instill a spirit of adventure in our children to teach them to appreciate and respect nature. Survival training is not just a skill; it's also a heritage that we hand down to ensure that the wilderness continues to educate and inspire. Embrace the call of the outdoors and equip yourself and your children with the knowledge and gear to thrive in nature.

SURVIVE IN THE WILD

Bushcraft Kid is the debut book by Dan Wowak from Coalcracker Bushcraft and known from his time on the series *Alone*. This guidebook invites children and their guardians to embark on an enchanting wilderness adventure. It's meticulously organized with straightforward, sequential guidance for mastering bushcraft skills such as fire and shelter construction, foraging, and navigation. The book also emphasizes culinary delights, offering a dedicated section on outdoor cooking methods and recipes.

Overflowing with survival techniques and wisdom from Wowak's YouTube channel and personal experiences, *Bushcraft Kid* is an essential addition to any outdoor enthusiast's collection and a treasured present that shares the invaluable gift of knowledge.



Reuben Bolieu is a passionate adventurer who explores remote and exotic places across the globe. He shares his expertise in survival techniques and woodcraft through his acclaimed writing, photography, and knowledge in survival classes and outdoor magazines.

FROM FOREST TO TABLE

The beginner's guide to foraging



BY REUBEN BOLIEU



ARE YOU READY TO DIVE INTO THE WORLD OF FORAGING FOR WILD FOOD? THAT'S RIGHT: FORAGING, NOT TO BE CONFUSED WITH FORGING. THERE'S NO FURNACE, OR HAMMERING OUT HOT METAL HERE. FORAGING IS AN EXCITING JOURNEY THAT CONNECTS US WITH NATURE AND OFFERS A SUSTAINABLE SOURCE OF NOURISHMENT.



There's something
primal about harvesting
lunch or dinner in the wild.



But it's important to approach foraging with a deep respect for the environment and local ecosystems. There's a right and wrong way to do everything in the woods and in life. Here are some ethical guidelines to help you responsibly forage wild food from the wilderness.

✦ **Know What You're Foraging** Familiarize yourself with the local flora and fauna in whatever area you are in (see below). It's essential to be able to identify edible plants and mushrooms accurately, as well as poisonous look-alikes. These days there are more study resources than ever before—heck, even more than 10 years ago.

✦ **Harvest Sustainably** Take only what you need and leave enough behind for the plants to regenerate and for wildlife to thrive. Avoid overharvesting and consider the long-term health of the plant populations.

✦ **Forage Invasive Species** By focusing on hunting down invasive species for food, we can effectively curb their spread and minimize their negative effects on the natural balance of our ecosystems.

✦ **Obtain Permission** When gathering wild food, it's important to



always seek permission if you're on private property. If you're on public land, make sure to follow any rules or restrictions that are in place.

✦ **Leave No Trace** When enjoying the outdoors, it's important to follow the principles of leave no trace. This means cleaning up after yourself and leaving the area as you found it, or even better. Doing so helps to protect the natural beauty and usefulness of the wilderness for everyone to enjoy.

✦ **Acknowledge Cultural Significance** Recognize and respect the historical and cultural significance of the plants you forage, especially those used by Indigenous and local communities. Learn from them and carry on traditions.

✦ **Share Knowledge Responsibly** Share your foraging adventures on social media or other platforms, but be sure to highlight ethical and sustainable practices to inspire others. By adhering to these ethical practices, foragers can enjoy the bounty of the wilderness without harming the environment or depleting natural resources.

GREEDY GUS

It's common to have the urge to be overly

indulgent. You come across a field or cluster of natural food, and you feel the desire to gather as much as possible. I've experienced this myself. In such situations, many individuals end up taking more than they actually need, leading to waste and a lack of consideration for others.

BEGINNER-FRIENDLY WILD EDIBLES

Here are just a few fairly common plants that make for good eating.

NETTLES

Nettles are common and grow almost everywhere. Their leaves have tiny stinging hairs.

✦ **Edible Parts** Young leaves can be used in cooking.

✦ **Nutrition** Rich in vitamins and minerals.

✦ **Use** Saute or make tea.

✦ **Caution** Handle with care due to stinging hairs. Wear gloves.

DANDELION

Dandelion leaves are slightly bitter and rich in vitamins A, C and K.

✦ Edible Parts

Leaves (salads or sauteed), flowers (salads) and whole plant (dried for tea).

✦ **Caution** Avoid the milky sap.

✦ **Recipe** Try making dandelion salad or sauteed greens.

GARLIC MUSTARD

Garlic mustard grows in the spring and summer. It has a strong horseradish flavor.

✦ **Edible Parts** Young leaves (about 6 inches tall) are good for salads or soups. The young

Wazoo Gear offers a Foraging Bandanna with 12 common wild plants and fungi, along with indicator icons depicting their uses. It's a wearable tool for foragers to identify their enthusiasm for foraging.



EASY FRIENDLY FUNGI

Oyster mushrooms are a popular and sought-after wild edible in North America. These mushrooms can be found growing on dead or dying hardwood trees—mainly oak, aspen and beech. They have a distinct appearance with a shelf-like structure and vary in color from white to light brown. Oyster mushrooms are known for their delicate, mild flavor and are versatile in cooking. They are often used in stir-fries, soups and pasta dishes. When foraging for oyster mushrooms, it's essential to identify them positively and to harvest them sustainably, leaving some behind to support the continued growth and health of the mushroom population.



PNWBushcraft offers a Mushroom Foraging Pouch with a mesh bottom that allows the spores on your harvest to be dispersed on the forest floor to grow anew.

stems are also edible and are best cooked.

✦ **Use** Make pesto or add flavor to dishes.

RAMPS

Ramps have a robust, garlicky flavor.

✦ **Season** Spring (April or May).

✦ **Identification** Look for green onionlike plants with rounded leaves.

✦ **Use** Lightly cook ramps in various dishes.

✦ **Habitat** Forest edges or disturbed soil.

✦ **Caution** Wash thoroughly and chop them before use.

WILD RASPBERRIES

Sweet and juicy, similar to strawberries.

✦ **Season** Late summer and early fall.

✦ **Identification** Red fruit on low, thorny plants.

✦ **Nutrition** High in vitamin C, manganese and dietary fiber.

✦ **Use** Fresh, in jam or in pie.

✦ **Preservation** Wash, hull and preserve for later use.

WHAT TO TAKE

Like any new endeavor, especially

in the wilderness, be prepared. Take the right stuff for success. What would any teaching article be without talking about what you need?

✦ **Keep it simple** In a haversack, pack water, a whistle, comfortable footwear, a knife, a hat, bug spray, a compass, cover, and simple

guides. I said haversack for reasons. Most foraging takes place in warmer weather, and one-shouldered haversacks promote airflow, not a sweaty back. Additionally, they add convenience when looking for guides and staying hydrated.

✦ **Rain won't bother your foraging** Rain is necessary for growth. Take a poncho or rain gear appropriate for your area and weather. When everyone else clears out from the rain, you will have the forest to yourself and get first pick at the good stuff.

✦ **Container for your finds** PNWBushcraft offers an excellent Mushroom Foraging Pouch with a mesh bottom. When you find the perfect patch of mushrooms, just unsnap the front and unroll the bag. The bag is 12 inches deep and 6 inches in diameter. Its mesh bottom allows spores to spread and replenish your mushroom haven for future foraging.

✦ **Bandanna** Wazoo Gear makes a time-tested Foraging Bandanna. The Foraging Bandanna displays 12 common wild plants and fungi

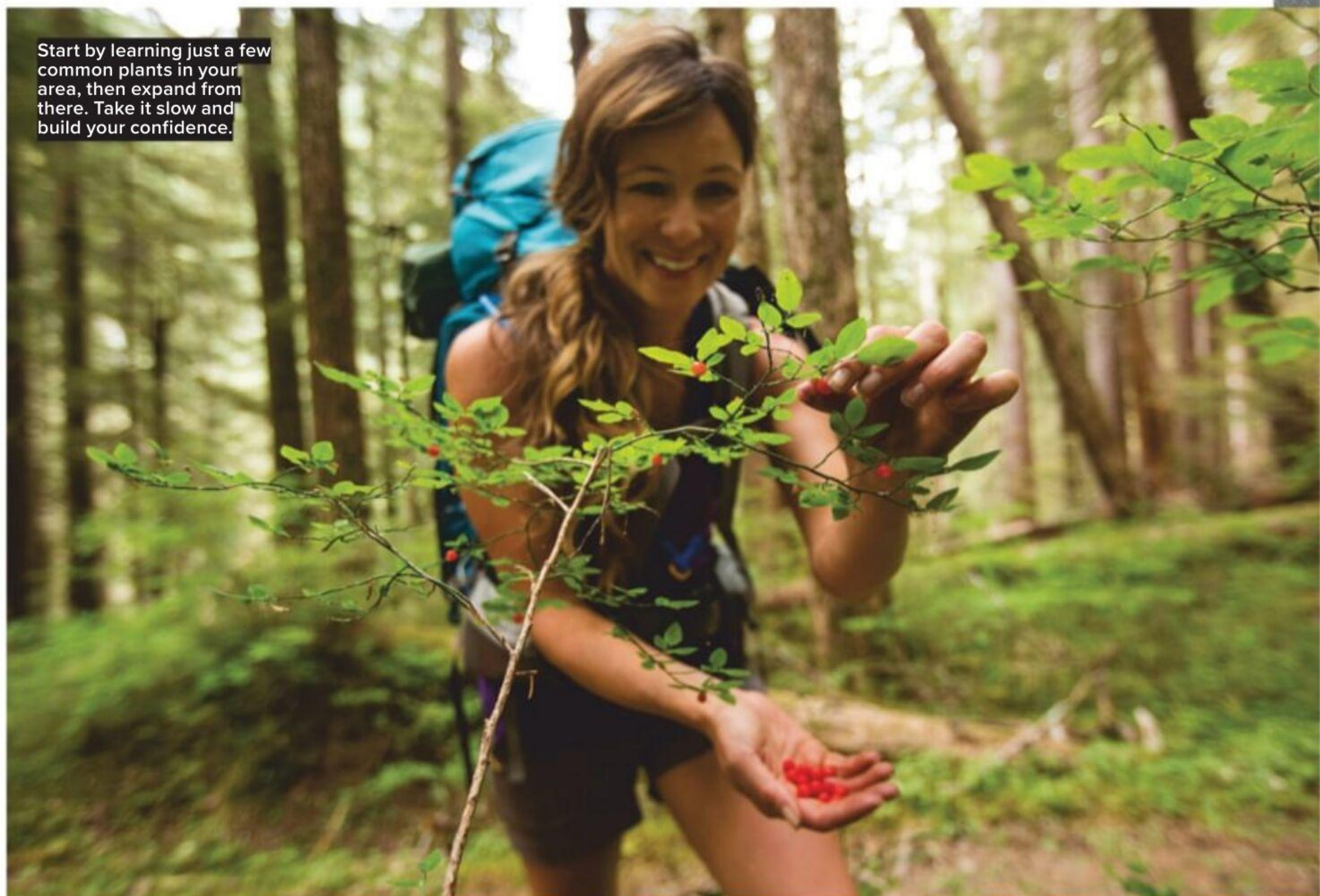
with indicator icons for their uses. It's a wearable tool for foragers to identify and share their passion safely.

✦ **You'll need a knife** I like the simplicity of a fixed blade, with no moving parts to get fouled or to fail, especially when you are in the zone and have a plentiful bounty. Digging in a pocket or haversack every time and opening a slipjoint folding knife gets old. However, I do consider a Swiss Army Knife to be an outstanding mushroom knife. I'm a fan of what works. In

this scenario, you don't need anything over 3 inches in blade length.

To ensure safety, foraged food must be cleaned and prepared properly before consumption. This involves thoroughly washing and inspecting plants and being cautious when trying new wild foods, as some may cause allergic reactions in certain individuals. By following these best practices, foragers can enjoy the abundance of the wilderness while also respecting the environment and its delicate balance.

Start by learning just a few common plants in your area, then expand from there. Take it slow and build your confidence.



KEEP IT CLEAN

Using what Mother Nature provides



BY CHRISTOPHER NYERGES



Whether you're camping or involved in a grid-down disaster, there are solutions you can explore.

A woman with long brown hair tied back, wearing a light blue long-sleeved shirt and dark pants, is hanging laundry on a yellow rope line stretched between two large trees. She is holding a dark green shirt. Other items hanging on the line include a blue shirt, a colorful patterned cloth, and a teal shirt. In the foreground, the handlebars and front wheel of a mountain bike are visible. The background shows a forest with a body of water and a green container on the shore.

PEOPLE OF THE PAST USED PRETTY MUCH THE SAME TOILET ARTICLES THAT WE USE TODAY IN MODERN SOCIETY. HOWEVER, THE ITEMS OF THE PAST LOOKED A LOT DIFFERENT BECAUSE THEY'RE PRODUCTS THAT CAME DIRECTLY FROM NATURE.

All of the cosmetics and soaps and such things comprise a billion-dollar industry in today's world. It would seem impossible to ever run out of these things. But what if circumstances were such that you didn't have these articles of daily life? What could you do?

TOOTHBRUSH

The toothbrush of the past was a slender stick whose end was chewed until it was frayed. Oak twigs have commonly been used, and their tannic acid is said to be good for the gums.

Licorice roots were used throughout central Europe, and the miswak stems (also known as peelu) are still widely used throughout the Middle East, India and northeastern Africa. In

America's Appalachian area, people there are said to be fond of dogwood twigs as teeth cleaners. Little twigs from willow are known to be used for toothbrushes too.

DENTRIFICE

A simple dentrifice of the past was white ash, mixed with a bit of water. The white ash is typically collected from a fire where hardwood was burned, and the

ash is sifted to removed any chunks before use.

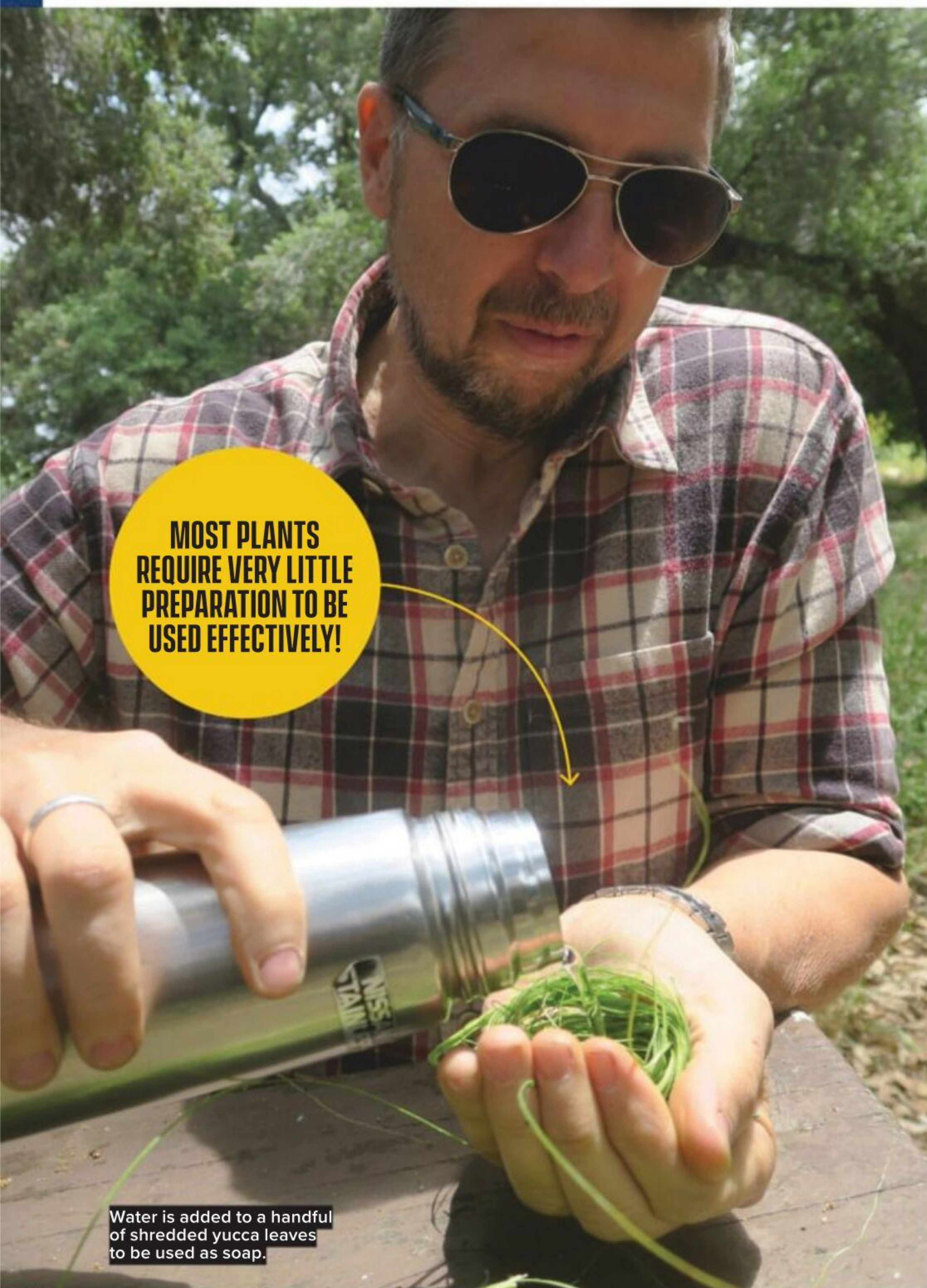
MOUTH FRESHENER

Once after dining at an East Indian restaurant, we were served a small plate of fennel seeds rather than the traditional sugar mints. We chewed on a few of those seeds and our mouth was full of that strong licorice flavor of the fennel. Fennel is from Europe and is found all throughout Europe today, as well as most of North America. The seeds can be easily dried and saved for when you need a breath freshener.

Other plants that have been used similarly include the leaves or seeds of any of the sages, mints, sticky yerba santa leaves, and dozens of other plants. My mother (an R.N.) used to tell us that the chlorophyll from any edible green plant is a breath deodorizer, so edible greens can be chewed to freshen the breath.

SOAPS

Soaps have long been available from many plant sources. Where yucca is available throughout the West, Southwest, and parts of the Plains, the leaves can be shredded, mixed with water and agitated between the hands to make a lather. You can make soapy water from yucca in a container, and then use that to wash your body, your



**MOST PLANTS
REQUIRE VERY LITTLE
PREPARATION TO BE
USED EFFECTIVELY!**

Water is added to a handful of shredded yucca leaves to be used as soap.

hair, your clothes, or even your dog.

Another natural source of soap are the buds, flowers and fruits of the mountain lilac plant (*Ceanothus* spp), species of which are found throughout the United States. Just rub the fresh flowers and fruits with water between your hands and you have a great soap. I have experimented with drying the little *Ceanothus* fruits for later. When they dry, they are hard, so I grind them into a powder first, and then make soap. I have made soap from powdered *Ceanothus* fruits that were nearly 20 years old.

HAIR RINSE

The pads of the prickly pear cactus make a good hair conditioner. Clean the pads of their spines



rough surface, akin to the pumice stones that you see at beauty salons. This is rubbed on the skin to remove such things as pine tar and other hard-to-

The fresh fruits hang from the vine, green and spiny. As they mature, big seeds pop out of the fruits' four chambers. When fully dry, you can peel off

past by binding stiff sections of fibrous plants together. Roots, leaves and stems have all been used. I have experimented mostly with making brushes from dried yucca leaves. You simply bind them together securely, and with a bit of artistry, you have a brush. You can create brushes that are soft or stiff, depending on their intended use.

TRY TO STICK TO USING ONE PLANT AT A TIME UNTIL YOU'RE CERTAIN YOU AREN'T EXPERIENCING ANY ALLERGIC REACTIONS.

and glochids and dice them. Blend it all with water, and then strain out the water. This water will feel like egg whites, and may feel unusual the first time you try it. It makes hair feel silky.

JOJO STONE

This is a little round stone with a slightly

remove stains. It was named after a man from the Philippines who always used such a rock when camping.

LUFFA

In many parts of the country, a plant called wild cucumber (*Marah* spp.) grows as a sprawling vine over trees and other plants.

the spiny layer and you have a small version of the luffa sold in health food stores and beauty supply outlets. Wet it and use it to scrub your skin, and even clean your pots and pans if you wish.

BRUSHES

Many types of brushes were made in the

TOILET PAPER

The woods are full of toilet paper, right? Many leaves make ideal toilet paper, such as the large leaves from maple or sycamore trees. Another good leaf is the large soft leaf of the mullein herb (*Verbascum thapsus*) found throughout Europe and North America. In fact, there

INSECT REPELLENT

We know that Indigenous peoples of North America sometimes rubbed mud or charcoal over their body so that animals would not smell them when hunting. It turns out that these methods also tend to repel insects such as mosquitoes. One that I have tried is laurel sumac leaves (*Malosma laurina*, formerly *Rhus laurina*), which is a shrub found widely in the Southwest. Native people rubbed crushed laurel sumac leaves over their bodies so the animals they hunted didn't smell them, but it turns out that the odor of laurel sumac also repels mosquitoes. I've tried it on numerous occasions, and though it's not as effective as commercial repellents, it does seem to keep most of the mosquitoes away.



Native peoples have long rubbed the leaves of the laurel sumac bush on their skin so that animals wouldn't smell them when hunting. Doing so also repels mosquitoes.

must be hundreds of possible choices for this, but be sure you know how to recognize poison ivy and poison oak.

DEODORANT

We're fairly certain that people in the past were offended by foul body odors. That's why perfumes were invented in Europe. Of course, washing the body is the best solution. Second best is to mash strong herbs and then rub them under the arms and elsewhere to counteract the smell. Sages and bay were two that were widely used in the past, and other aromatic herbs can be used in a similar way.

CUTS

Depending on the severity of the cut, past people may have applied direct pressure in hopes of stopping the blood flow. We know that stitching and suturing



A yucca brush.

was done in the past, using plant fibers and probably no anesthetic. For minor wounds, the downy fluff from a mature cattail head can be pressed into a wound to stop the blood flow. I have also used the dried leaves of mugwort, pressed onto a cut and then tied in place with a cord of yucca.

Wounds can also be

washed with a decoction from oak bark or leaves, since it is very astringent and helps the wound to close and heal.

WILD ASPIRIN

White willow bark contains salicin, the original source of aspirin. Typically, the bark is removed and boiled, and this tea is used to wash wounds to locally relieve pain. The tea could also be consumed for headaches.

Even if we didn't have our modern gadgets and various substances in plastic containers, we could stay clean and sanitary by thoughtfully utilizing what nature has provided.

Christopher Nyerges is the author of such books as *How to Survive Anywhere*, *Urban Survival Guide* and others. He has been teaching outdoor skills since 1974.

A close-up photograph showing several hands using the white, fluffy seed heads of cattails to create a natural bandage. The hands are positioned around the fluff, which is being pressed together. The background consists of green grass and several brown, cylindrical cattail seed heads. The text is overlaid on the central part of the image.

**IN THE ABSENCE OF MODERN CONVENIENCES,
WE CAN STILL STAY CLEAN AND COMFORTABLE
USING WHAT NATURE PROVIDES FOR US.**

This fluff can be pressed into
a wound to stop blood flow.

KEEPING BUGS AT BAY

Repellent strategies



BY MICHAEL D'ANGONA



SOMETIMES THE SMALLEST THINGS CAUSE THE BIGGEST PROBLEMS, AND THIS IS NEVER MORE TRUE THAN WHEN INSECTS ARE FEASTING ON YOUR TENDER FLESH. THEY COME TO ATTACK IN A VARIETY OF FORMS, INCLUDING DISEASE-CARRYING TICKS, BITING FLIES AND, OF COURSE, THE RELENTLESS MOSQUITO.



**SKEETERS AND
THE LIKE CAN
MAKE ANY TRIP
OUTDOORS FEEL LIKE
A NIGHTMARE!**

Some type of reliable repellent is a must-have in many areas of the country from spring through fall.

These tiny organisms often attack in great numbers, causing you both mental and physical stress as their constant barrage—and bites—can turn a great time outdoors into a living nightmare. However, you can fight back. Aside from the traditional bug spray, there are numerous physical, chemical and natural options to keep pests at bay and away from your skin. The time to start your defense against nature's smallest predators begins now.

DANGERS IF NOT PROTECTED

Everyone gets an insect bite here and

there, so what's the problem? Well, unlike the occasional bite, insects out in the wild aren't usually coming aggressively at you alone, but rather in

force with dozens to hundreds of others. In the case of mosquitoes, this swarm not only causes itchy red lumps all over your skin, but also takes a mental toll



on you. The stress from fighting them off, as well as you continuing to scratch (even to the point of breaking the skin and releasing blood) can break you down, and when deep in the outdoors, this isn't a good thing. Additionally, too many bites or too much scratching on the skin (with dirty fingernails, no less) can cause infection. For those allergic to mosquito saliva, so-called skeeter syndrome can occur in which large areas of swelling, puffiness and soreness can result. In the case of ticks, Lyme and other diseases, as well as infection from the organism's head (left under the host's skin during removal) can occur.

CHEMICAL WEAPONS

Perhaps the best known and most common go-to measure to prevent insect bites is an insect repellent. These are available in various forms such as sprays, lotions, saturated fabric pads and roll-on sticks. One of the most highly effective options is repellents that contain DEET. This chemical has been in use since the late 1950s and continues to be effective and useful today. It is available in various percentage concentrations ranging from very low (5%) to the maximum available (100%), although the effectiveness of





Keep your repellent of choice close at hand when you hit the trail.

the product is not a direct relationship to its percentage. For example, the protection you get from 100% DEET won't last much longer than the protection from 50%. DEET is considered safe to use. However, with younger children, the concentrations used should range between 10% and 30%. Some skin irritation may occur with extended use. Picaridin is another variety of chemical repellent. Its benefits

include little to no skin irritation and no odor. However, its level of protection is less than DEET's, with most picaridin repellents offering protection equal to DEET's 10% varieties.

ELECTRONIC BARRIERS

Another means to keep nature's tiniest critters from feasting on your skin is by using electronic barriers. These come in two basic types with varying degrees of effectiveness.

First, there are electric diffusers. These devices are either powered by traditional batteries or use rechargeable batteries. The units create heat that causes a fine mist to diffuse into the air and repel insects within a defined perimeter. This area of protection varies by product but most can easily reach about 15 or 20 feet—just enough for two to four people to be essentially insect free. These electronic devices are portable, compact

and add hardly any weight to a camper's pack. The units are easy to maintain, with most utilizing small cartridges of repellent that last for hours and are simple to insert and inject when depleted. Unlike spray or rub-on chemicals, the diffuser emits the fine mist upward and around your area and doesn't cling to your skin or gear. It is both safe and odorless. Though relatively new on the market, many people

who have tried this method to repel insects (me included) have noticed its effectiveness in the field, especially around insect-heavy environments such as swampland, marshes and the deep woods.

A second type of electronic barrier

utilizes ultrasonic sound to keep bugs from invading your space either at home or around the campsite. The effectiveness of sonic repellent devices is a bit questionable; some users swear by them, while others say they have found that they are essentially useless. The fact is that most of these devices have not been proven effective or noneffective because not enough testing has

been performed and recorded.

PHYSICAL SHIELDS

Creating a physical barrier between you and the bugs is another viable choice. This can be accomplished whether you are still on your hike, trekking through deep brush, or when you're done for the day and settled at your campsite. Wearable insect netting is an option as you traverse nature's insect-heavy environments. These fine mesh add-ons can come in the

form of a head and/or face covering, or a full mosquito netting securing at the waist and covering upward to the top of the head. This ultrafine mesh will keep out most insects and not only prevent bites, but also the irritating effects of flying insects buzzing around your ears, eyes and nose. This form of protection is relatively inexpensive, takes up almost no space in even the smallest of packs or bags and can be reused repeatedly. Quality varies, so be



This type of protection will help keep the bugs from swarming at your eyes and face.



sure to test your choice before you head out into the deep woods. You wouldn't want a simple tear of the mesh to become a huge rupture rending your protection ultimately useless. Tents also can be purchased with mosquito mesh that will protect you and others while you sleep. Often, they are integrated within the layers of tent fabric, but there are some tents that are entirely mesh material for you to feel like you're sleeping out in nature, but without the pesky insects to keep you company at night. One chemical, permethrin, should be mentioned in this section. This repellent is highly effective at killing biting insects; however, it's not applied to a person's skin. Instead, it should be sprayed onto clothing, tent walls and mosquito netting itself. It is an extra layer of protection that will come in handy in dense insect environments. Best of all, it will stay on the said surfaces, even after several washings of the clothing or other material.

NATURAL METHODS

What if you have no synthetic options for insect repellents and you're far away

NETTING LIKE THIS HUNG OVER YOUR BEDDING WILL ASSURE YOU GET GREAT SLEEP!



from civilization? You shouldn't worry, because there are numerous natural options to keep your skin bite-free. First, there's fire, or more specifically, smoke. Smoke can be used to flush out bugs from your temporary structure or keep them at bay from inundating your campsite. Cedar wood and bark are excellent materials to burn and smolder to create a natural repellent.

If positioned near a pond or other stagnant body of water, you may be lucky enough to find some cattails. Once lit, these will produce slow-drifting smoke that bugs detest. Place them downwind, so you can "bathe" in the smoke and create a natural barrier from pests. Burning punk wood (rotting wood) also produces insect-repellent smoke.

If you have access to fresh mud, then you may want to coat some or all of your body in this protective material. Use wet mud to coat your limbs, and as it dries it will solidify and produce a physical shield from the bites of bugs. Utilizing a combination of all these natural options can and will protect you when no other man-made options are available.

AFTER THE BITE

OK, you've been bitten. But what you do about it after the fact is very important. Below are some tips to follow when the damage is done, and it's time to tend to the wound.

✱ Escape the Swarm

Where there's one bug, there's many—so get out of the area quickly. You don't need a body covered in bites, so get inside your home, close yourself up in your tent or get inside your vehicle so you can treat your bug bite(s) in peace.

✱ Wash Thoroughly

To prevent infection, gently wash the affected area with soap and water. Be sure to be gentle to avoid further irritation and dry the area entirely.

✱ Applying Cold

A cold compress or a towel saturated with cold water will help reduce any swelling. Keep it on the bite area for at least 15 to 20 minutes.

✱ Add an Ointment

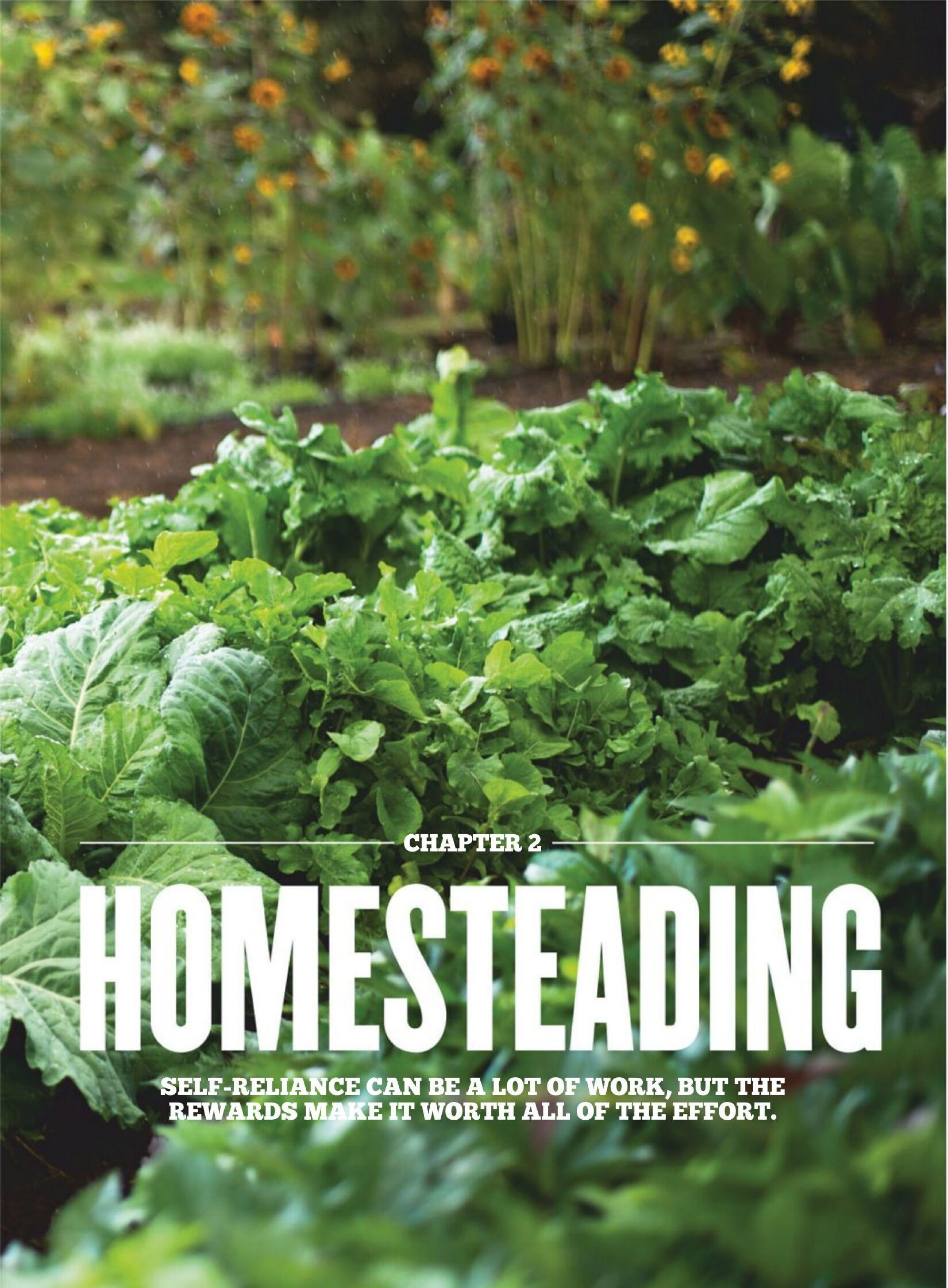
Apply a skin lotion to the affected area. The best choice is an anti-itch cream such as calamine lotion. Baking soda paste and hydrocortisone creams can also create a soothing effect on the skin and reduce itching.

✱ Pain Relief

Taking an over-the-counter medication for pain and antihistamines for additional anti-itch protection will work to finalize your road to recovery.

Michael D'Angona is a freelance writer, author, martial artist and survival skill practitioner. He has published hundreds of articles encompassing such topics as self-defense, preparedness, product reviews and outdoor skills. He currently offers his books for purchase and magazine writing services at mjd-writersresource.wixsite.com/my-site.





CHAPTER 2

HOMESTEADING

**SELF-RELIANCE CAN BE A LOT OF WORK, BUT THE
REWARDS MAKE IT WORTH ALL OF THE EFFORT.**

DANCING THE DAIRY DILEMMA

Choosing the right milk animal



BY ANDREA KOPUT



MILK IS NATURE'S ORIGINAL PERFECT FOOD. IT IS MADE TO CATER TO THE NUTRITION NEEDS OF GROWING BABIES AND BEYOND. IT CAN BE THE BACKBONE OF A HOME AND HOMESTEAD.

Most people don't have the land and resources for raising a dairy cow, so they need to explore other options.



**COWS AREN'T
THE ONLY
HOMESTEAD ANIMAL
THAT CAN PRODUCE
MILK FOR YOU!**

It will provide not only the people under the roof with fresh nourishing milk and dairy products, but also boost nutrition in livestock and increase soil fertility.

Animal husbandry is a balancing act of management and patience. It does not matter if you are chasing a small flock of cheeky chickens or learning the personality quirks of a family

milk cow: Meeting them at their level will deliver the best results. Animals in the ruminant family all have similar feed requirements and require access to clean water.

Prepare yourself with access to pasture when possible and make friends with your local hay guy. Your hay guy will be your best ally in successful dairying; bribe, schmooze

and sweet-talk your way into a positive relationship as access to good hay equals healthy, happy animals. It's wise to stock up when the going is good, because hay is needed on many homesteads year-round. Summer's first and second cuttings are much more reasonable than scrambling to source hay in the winter. Do the math to see how many bales you need to bring you

throughout the year. Tractor Tools Direct has a Hay Calculator that helps you determine your hay needs, which you can find online at tractortoolsdirect.com/hay-calculator.

ESCAPING THE SCAPEGOAT

Goats get a bad rap; it's just that simple. Rumors follow goats like a bad shadow and have the public convinced these crude critters are troublesome barn rats that will eat you out of house and homestead.

Don't believe the hype. Goats are some of the smartest, most gentle livestock I have been privileged to work with. Their personalities are nuanced by breed and their small stature lends nicely to small homesteads and constricted acreage. Rarely weighing more than 60 to 100 pounds, dairy goats are quality animals to have with families and children. Understand that handling daily chores compares easily to managing a large

dog, in demeanor and size. Being stepped on by a goat is far less intimidating than if it's a 1,200-pound cow.

Goat's milk is the closest you can find to human breast milk and, as stated by the National Library of Medicine, it is easier to digest than cow's milk by most people. It is higher in fat and protein, and lower in lactose or dairy sugars. The cherry on top going for Team Goat is that goat's milk is naturally homogenized, meaning

the cream is evenly distributed. It's also always A2A2, which means that it contains 100% A2 beta-casein protein. (There's more information on this in the sidebar on page 38.) As a practical matter, this makes it easier to digest.

If your family is looking for a reasonable consumable amount of milk, a goat's two teat production is highly favorable. A goat in prime production will produce 3 to 5 quarts of milk per day, varying



Lady Dorrit is a registered miniature Jersey. She provides close to 3 gallons a day with twice-daily milking.

from breed to breed. Cream does not separate readily in goat's milk, meaning butter and ice cream are not sensible realities. Also, in cheese-making, curd formation is small and lends itself beautifully to smooth chevre and ricotta but it takes extensive practice to create hard aged cheeses like cheddar and Gouda.

Goat's milk can have strong "goaty" flavor; this can be mitigated by management practices but is difficult to fully remove. Some goats will always have a "goatiness" to their milk. When choosing a goat, I suggest always to try before you buy, as each of our personal palates varies and that which is strong to you may be delicious to others.

FOUR-LEGGED TODDLERS

Goat management is simple when you understand a few simple concepts. Treat goats exactly like toddlers, as all obstacles are meant to be climbed on and everything goes in the mouth. Yes, your fences will be tested so build them well. Chicken wire will not work, and any height under 48 inches will be jumped over. Solid T-posts secured 12 inches into the ground with 2x4 mesh horse panels are a reliable favorite.

Your structures will be lovingly stomped on, and a bored goat is a



Small children with their small hands are great goat milkers.

CHILDREN CAN BE GREAT HELPERS AROUND THE HOMESTEAD, ESPECIALLY IF THEY'RE EXCITED ABOUT WHAT YOU'RE ASKING THEM TO DO.



Milking barns do not need to be complex, but it is best to have shelter from the elements. Chores do not take the day off due to foul weather.

THE ALPHABET GAME OF A1 VS. A2

When choosing a dairy animal, ask if she is A1 or A2. As cattle were domesticated, milk became commoditized and breeding focus turned to quantity to meet market demand. This breeding created gains in production, but produced milk protein (A1A2) that is not easily digestible. The majority of milk in the USA is A1A2. This is large factor in dairy intolerance.

Milk intolerance has many different levels of severity. Some people are completely allergic and need to avoid it, and others are sensitive to milk in its commercial state. Store-bought milk is one of the hardest foods to digest. Studies show pasteurization of dairy reduces its digestibility. For many people, switching to easier-to-digest fresh A2A2 milk is better for their health.

The legality of raw milk varies from state to state as the public rediscovers this superfood. Explore your state's availability at realmilk.com.



Welcome curiosity in the barn! Encourage people to get to know their food and where it comes from.



If you look closely you can see the difference between goat's and cow's milks. Goat's milk will always be a bright, clean white. Cow's milk has a yellow tint and the cream rises to the top.

naughty goat, so give them something to do. Goats require shelter from the wind and rain. They do not like getting their pretty face's wet. Build them three-sided structures with the ability to fully enclose them during inclement weather and wintering season. Goats need a friend. You cannot have

just one goat. They are happiest in a group of two or more.

Dairy goats are a great gateway animal into the home dairying lifestyle. Their compact size and reduced size requirement make them very attractive to many, but they will test their boundaries and your patience.

Personal favorite breeds are Alpines and Nubians for their calm demeanor and large milk capacity. Nigerian Dwarfs are also popular, but what they lack in size they make up for in cheeky personalities.

A small herd of goats will add great value in milk production and boost soil fertility with their cold manure—but will amaze you at the shenanigans they get themselves into, adding entertainment to any farmstead.

STOP THE COW-NUNDRUM

Cows are large 800- to 1,200-plus-pound animals. You don't just move a cow. They move you. Picture an animal as large as four fully grown men that drinks 10-plus gallons of water daily and can consume 24 pounds of hay, with all of that turning into giant dinner plate-sized cow patties that must be removed daily. Can you smell the romance?

Why, knowing this, is the family milk cow still a top-wished-for item on seasoned homesteaders' holiday wish lists? Well, one cow will provide 1 to 6 gallons of milk a day, depending on breed and management preferences. That's enough dairy for your family, your livestock and a healthy chunk of your favorite neighbors.

Ice-cold, farm-fresh cow's milk is, once experienced, something that will ruin you in

the best way possible for conventional dairy. The flavor is unbeatable, both sweet and satisfying. Raw cow's milk is a meal in itself, meeting and exceeding the dietary requirements in the standard Western diet. As the cream rises to the top, you get to skim it off in all its glory to enjoy in your morning coffee, churn into mouthwatering butter, or splurge and create homemade ice cream with a bit of maple syrup and a dash of salt. With practice, cheesemaking is an

attainable reality—just get a good cookbook and follow the instructions step by step. A great book to start with is *Home Cheese Making* by Ricki Carroll.

SIZE MATTERS

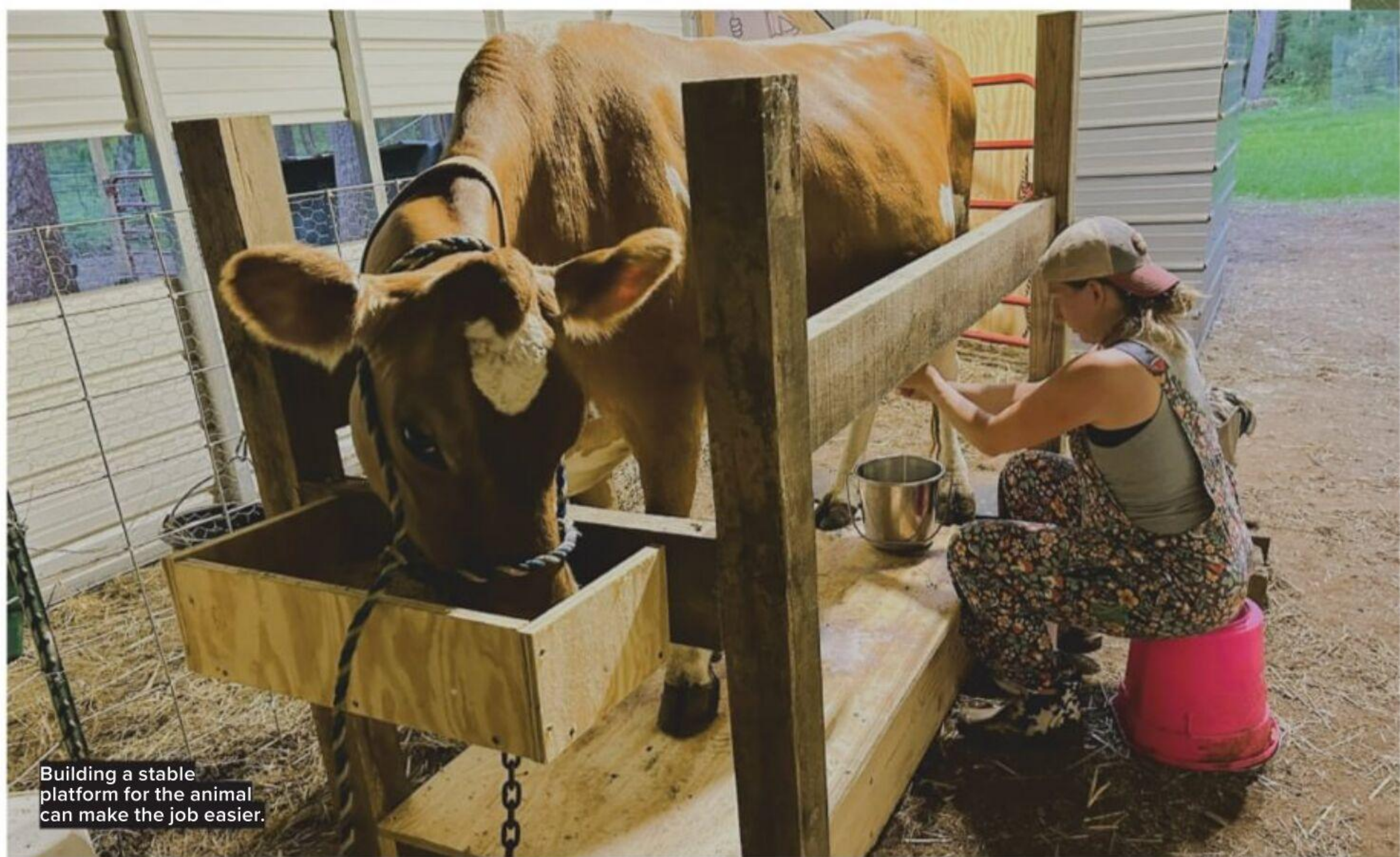
If size matters in the most exciting way, then a family milk cow will check all your boxes. As big as cows are, they are surprisingly easier to manage than goats. You will not see them creating a jungle gym out of your infrastructure and simple wire fencing will keep them at bay.

Popular homestead breeds to consider are Jerseys and Brown Swiss. They vary in size, and you will need to decide if you are looking for polled or dehorned animals. Jerseys are the classic milk cow, weighing in at around 900 pounds.

Not as delicate as goats, cows do not melt like sugar cubes in the rain. Provide them with cover, and unless the weather is horrendous, they seldom spend time in the barn. Yes, the chores are larger and the poop is bigger but like everything you

get out what you put in. Cows are the more-is-more homestead animal. Getting a cow feeds your entire homestead.

Any livestock is a decision that you must carefully deliberate. Ask yourself what will serve you in all seasons. Do not jump at the first seemingly good deal that falls into your lap, or you could risk buying someone else's problems. Invest in good genetics, do your due diligence and ask around what has worked best for people in your area.



Building a stable platform for the animal can make the job easier.

Andrea Koput is a rustic homesteader who finds passion taking the “hard” out of old-fashioned skills and from-scratch living. Her family of six is cozy in the woods of northern Wisconsin with a small farm of poultry, dairy animals and organic gardens. Follow her and her homestead's progress on Instagram @homesteadpearls.

THEY MIGHT
NOT SOUND ALL
THAT YUMMY, BUT
THEY'RE FREE AND
EASY TO ACQUIRE!

HOMEGROWN

They're a delicacy in many restaurants, and you can make them right at home.

A high-quality food photograph featuring a dish of escargot. Several snails are arranged on a dark, rustic metal tray, some filled with a vibrant green herb sauce. The tray sits on a weathered wooden surface. In the foreground, a slice of golden-brown, porous bread rests on a light-colored ceramic plate with a decorative rim. A small sprig of fresh green herbs is visible on the right side of the frame.

ESCARGOT

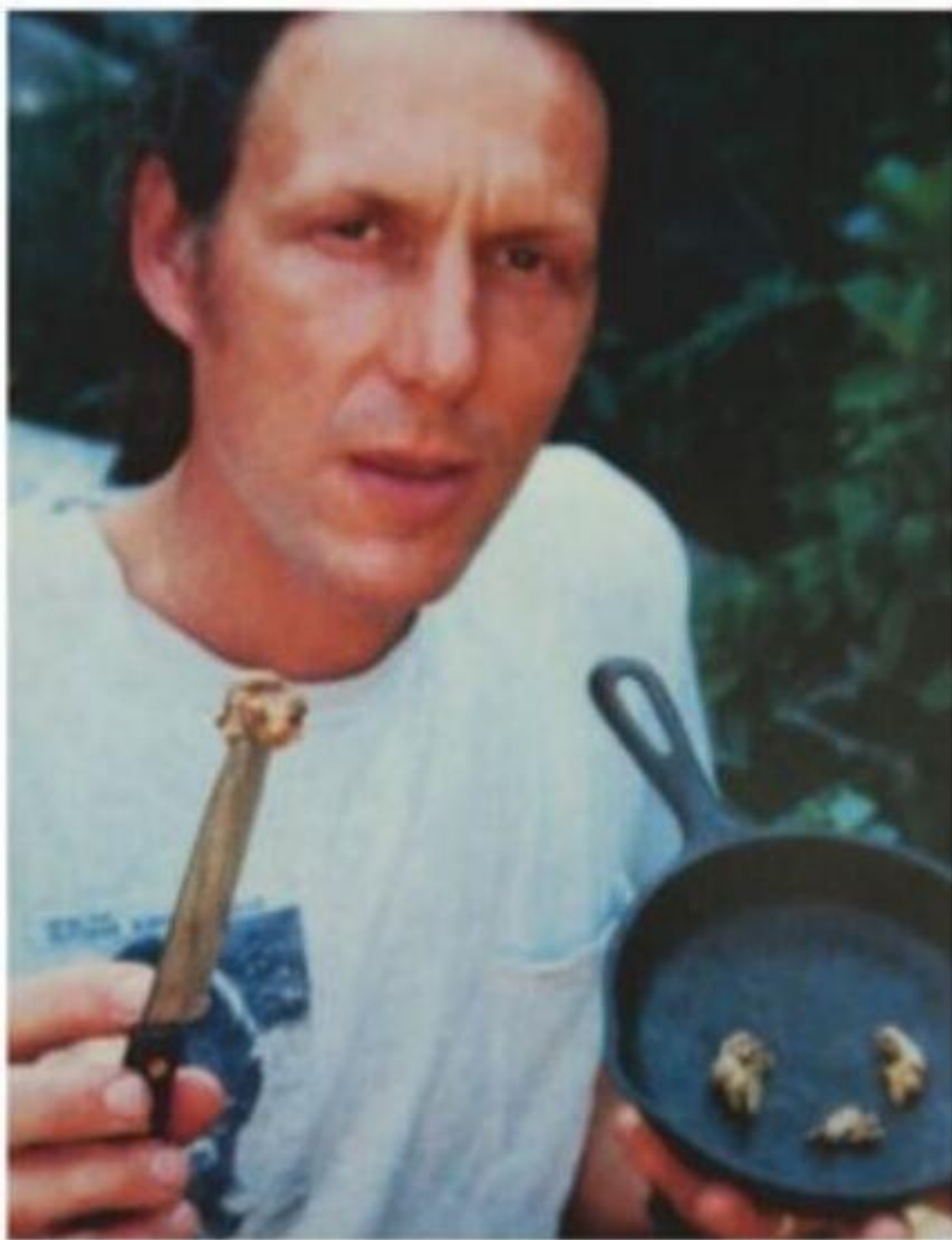
Turning pests into food



BY CHRISTOPHER NYERGES



IN MY EARLIEST DAYS OF LEARNING ABOUT THE WILD FOODS THAT NATURE PRODUCES, I STARTED THINKING ABOUT ALL THE SNAILS IN MY MOTHER'S GARDEN THAT SHE CONSTANTLY BATTLED. DON'T THEY EAT SNAILS IN FRANCE? I ONCE ASKED.



Once they've been collected and boiled, the meat is picked out from the shells.

I wondered if we could eat our garden snails too. But no one knew, so I was off on my search for information. I learned a lot of what I needed from the local agricultural extension and my Italian neighbors.

It turns out that the common brown garden snail is the smaller of the two most popular French eating snails (“escargot” means “snail” in French). In France, these two varieties are the larger *Helix pomatia*, or gros blancs, found primarily in Burgundy and thus called Bourgognes; and *Helix aspersa*, or petit gris, the smaller one.

Helix aspersa was first brought to North America about a hundred years ago to

be cultivated for food. But some eventually escaped their little cages and they are now quite common. They thrive in the Southern states and throughout California, where the climate is

the sprinklers begin to flow. The snails begin mating in the spring and continue throughout the summer. From 50 to 100 eggs are laid by each snail (snails are hermaphrodites, possessing both male

developed in order to eliminate these unwanted pests. Incidentally, any snails can be used for food, following the instructions given here. Brown snails are vegetarians, and are

BE SURE TO ONLY COLLECT SNAILS FROM YARDS AND GARDENS WHERE POISONS, SUCH AS PESTICIDES, HAVE NOT BEEN USED.

similar to the climate of its Mediterranean birthplace. Vegetable and ornamental gardens throughout many parts of the United States are often full of brown snails in the spring when the weather warms up and

and female organs). About half of these eggs will hatch about six weeks later. Gardeners get so alarmed by the snails’ voracious appetite and rapid breeding that all manner of repellents and poisons have been

rich in minerals, low in calories (about 90 per 100 grams of meat) and high in protein (about 12% to 16%). The *Helix aspersa* escargot is very easy to collect and prepare, and is a nonpareil survival food for campers or

urban dwellers. In emergencies, snails can be safely eaten raw; I have done this and though the flavor is mild, it is akin to chewing on a piece of rubber. Cooked and sauteed, they are delicious. Snails can also be able to live several weeks without eating, which enhances their value as a survival food that you could carry in your car or pack and have a continuous supply of fresh food.

Although you could simply gather and eat the *Helix aspersa* from your garden, a bit of preparation will produce a fine quality food.

Please note that it is imperative that snails not be gathered from a yard where poisons have been used. If poisons have been used, soak the area well with water every three to four days and don't gather any snails for food for a minimum of

six weeks. Nontoxic snail control methods will be discussed later.

Since snails are nocturnal, collecting is best done at night or in the early morning. The collection area should be lightly watered in the late afternoon of the day before in order to bring the most snails out of hiding. The larger, mature snails (approximately 1 inch in diameter) are not only meatier, but they also have thicker shells

and are thus easier to work with.

The gathered snails should first be kept in cages, which can be easily made from screens salvaged from old doors or windows. While in the cages, the snails should be "purged." Purging is recommended because some of the plants the snails have been eating may contain off-flavor or even toxic substances. Purging is done by placing



Some farms raise snails, as seen here.

a shallow container with about a half-inch of damp cornmeal in the cage's bottom, and letting the snails feed on it. The damp cornmeal should be changed every other day. The snails purge their digestive tracts by eating nothing but cornmeal. Three days is generally adequate, though some snail-raisers prefer to purge for up to a week before eating the snails, claiming that the longer purging period results in a better-tasting snail.

After the snails feed, the healthiest ones will crawl onto the sides of the container to rest. The snails that remain constantly on the bottom, on top of the cornmeal, are regarded as less desirable, though perfectly safe for eating.

After a few days of purging, you can remove snails to prepare for eating. First rinse them to remove dirt and cornmeal. Then drop them into a pot of lightly

THEY AREN'T THAT ATTRACTIVE, BUT PREPARE THEM RIGHT AND THEY'LL FILL A BELLY!



A typical escargot snail.

salted boiling water, which kills them. Let them cook for 10 to 20 minutes. Tenderness will vary depending on length of boiling, so you can experiment for your

taste. Then drain in a colander, and pick out the meat from each shell with a small fork or pointed knife.

The tail end of the snail, called the gall, is where the snail is attached to the shell. This should be removed because it is gritty. The gall is like a little curlicue, dark in color and about a quarter inch long. (Before I knew any better, I just picked snails from the garden, boiled them, and ate it all. It didn't kill me, but those were grittier than the ones properly prepared).

At this point, you can eat the snails, or prepare them further with a recipe of your choice (see sidebar, right, for one option). In France, they are often eaten with nothing more than French bread and wine. I have baked them, and I have sauteed them. My preference is to saute the boiled snails, which reduces any semblance of rubberiness and produces a great texture. I season them with a bit of butter and crushed garlic.

REALITY CHECK

I'm aware that every garden supply store sells various poisons to kill off snails, and I'm also aware that many of you simply will never want to consume these mollusks. So, here are some ways to keep them at bay without using poisons.



Because they're pretty small, it's best to cook a tray full of them at a time.



Garlic, parsley and melted butter make escargots a tasty treat.

Set out shallow dishes of beer. The snails drink the beer, become stupefied and immobile, and then can be easily collected and disposed of or fed to your pets, such as chickens and ducks.

Sprinkle bands of wood ashes or powdered talc 2 to 3 inches wide in a complete circle around the garden. Some hardier snails may cross these barriers once or twice, but they learn to avoid it because it dries up the lubricant they lay down to slide along.

Sprinkle salt on boards or rocks forming

a perimeter of the area you wish to protect, but not too close to your garden plants, since salt will slowly poison most plants. Rarely will snails venture across salt.

Perhaps the most effective and safest method of snail eradication is the application of powdered diatomaceous earth, a method developed by Dolores Miller of Rainbow Garden Service. Although diatomaceous earth is a good fertilizer for the soil, it quickly dries out and kills the snails.

RECIPE ESCARGOTS A LA BOURGUIGNON

Ingredients

- ✱ ½ pound butter
- ✱ 3 tablespoons finely chopped parsley
- ✱ 2 tablespoons finely chopped scallions (or a similar substitute)
- ✱ 1 or 2 large garlic cloves, peeled and crushed
- ✱ ¼ teaspoon sea salt or soy sauce
- ✱ Freshly ground black pepper (or paprika)
- ✱ 3 dozen large lightly boiled and purged escargot, galls removed (reserve and clean shells; see Note)
- ✱ French bread, sliced, for serving

Preheat oven to 275 F. In a mixing bowl, cream the butter until soft. Add the

parsley, scallions, garlic, salt and pepper, and mix well. Insert 1 prepared snail into each shell. Fill the remainder with as much of the butter mixture as will fit. Place the filled shells in a flat baking dish, with the open ends of the shells up. Place any remaining butter mixture around the shells.

Bake for about 15 to 20 minutes, until hot and bubbly. Serve at once with the French bread to dip in the butter. Yes, it's as good as it sounds!

NOTE Clean the shells by boiling them for about 20 minutes in a mixture of ¼ teaspoon baking soda per pint of water.

MAXIMIZE YOUR HARVEST

How the USDA Plant Hardiness Zone Map can help your homestead



BY BERNIE CARR





Any advantage you can use to increase your garden's productivity is important.

HOMESTEADERS GROW A VARIETY OF PLANTS, AND A GARDEN'S SUCCESS DEPENDS ON PLANTS BEING ABLE TO SURVIVE AND THRIVE. CHOOSING THE RIGHT PLANTS IS KEY AND THIS IS WHERE THE USDA PLANT HARDINESS ZONE MAPS, AKA THE GROWING ZONE MAPS, COME IN HANDY.

The maps provide a scientific basis for selecting plants most likely to survive in your specific climate. In this article, we'll go over the basics of Plant Hardiness Zones, how to use the maps, and discuss their applications to your garden.

PERENNIALS VS. ANNUALS

Before discussing plant hardiness zones, we need to distinguish what type of plant choices are influenced by the zones.

Perennials are plants that come back year after year without replanting. They go dormant during the winter and bloom again in the spring. Perennial

plants are affected by cold temperatures in the winter. Hence, you need to know whether a particular plant can withstand the coldest temperatures in your area. Growing zones apply to perennial plants: shrubs, trees, woody plants and some flowers.

On the other hand, annual plants, which include most vegetables and certain flowers, only last one growing season—from spring to fall—then die off. Plant hardiness zone maps do not apply to annual plants.

WHAT ARE PLANTING ZONES?

The U.S. Department of Agriculture’s Plant Hardiness Zone Map is the definitive guide

Hardiness refers to a plant’s ability to survive harsh winter temperatures. The Plant Hardiness Zone Map divides the country

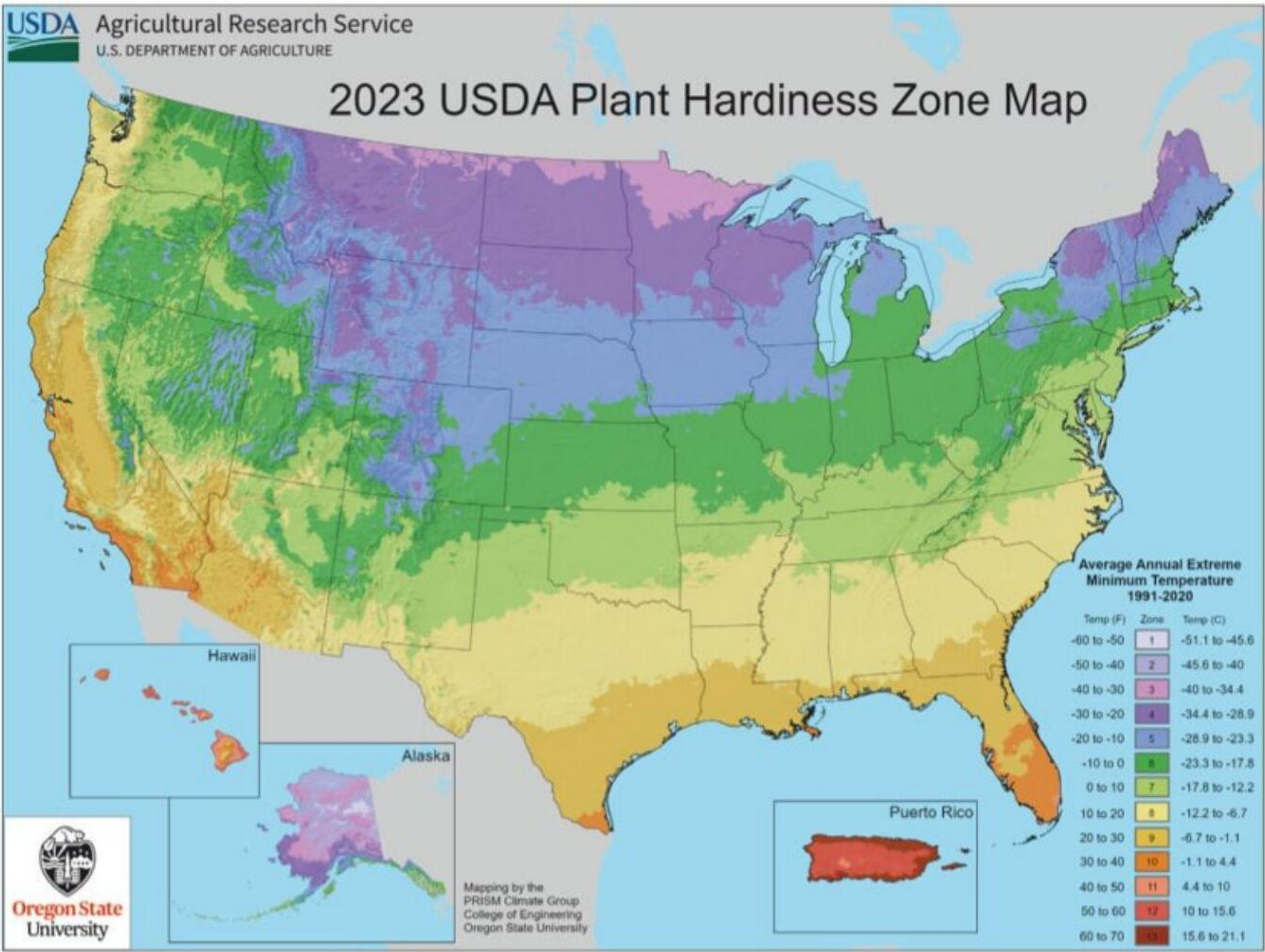
temperature ever experienced. Rather, the current map is based on an average of over 30 years. Because the map is based on

ONCE YOU KNOW YOUR ZONE, YOU’LL BE ABLE TO DETERMINE WHICH PLANTS ARE LIKELY TO DO WELL IN YOUR AREA, AND WHICH PLANTS TO AVOID.

used by gardeners to establish which perennial plants are most likely to do well at a certain location.

into 13 planting zones, based on the average annual minimum winter temperatures in the areas. It doesn’t mean the coldest

winter temperatures, it will help you determine which plants can survive the frigid temperatures in your area.



You can find this map online as well. Just search USDA Plant Hardiness Zone Map.

PLANT HARDINESS ZONES IN THE UNITED STATES

ZONE 1

-60 F to -50 F
(-51.1 C to -45.6 C)

This is the coldest zone, found in parts of Alaska.

✱ **Ideal time to plant**
Mid-June

ZONE 2

-50 F to -40 F
(-45.6 C to -40 C)

Found in the northernmost parts of the continental U.S. and interior Alaska.

✱ **Ideal time to plant**
Mid-June

ZONE 3

-40 F to -30 F
(-40 C to -34.4 C)

Covers northern U.S. states like North Dakota, Minnesota, and parts of Montana and Maine.

✱ **Ideal time to plant**
Mid-May

ZONE 4

-30 F to -20 F
(-34.4 C to -28.9 C)

Includes parts of the northern Midwest and New England. ✱ **Ideal time to plant**
Mid-May

ZONE 5

-20 F to -10 F
(-28.9 C to -23.3 C)

Encompasses much of the Midwest and parts of the Northeast. ✱ **Ideal time to plant**
Mid-April

ZONE 6

-10 F to 0 F
(-23.3 C to -17.8 C)

Found in parts of the mid-Atlantic, Midwest and Pacific Northwest.

✱ **Ideal time to plant**
Mid-April

ZONE 7

0 F to 10 F
(-17.8 C to -12.2 C)

Covers parts of the South, the Pacific Northwest and the mid-Atlantic.

✱ Ideal time to plant

Mid-April

ZONE 8

10 F to 20 F
(-12.2 C to -6.7 C)

Includes parts of the Pacific Northwest, the South and Texas.

✱ **Ideal time to plant**
Mid-March

ZONE 9

20 F to 30 F
(-6.7 C to -1.1 C)

Found in the southernmost parts of the U.S., including Florida, southern Texas and coastal California.

✱ **Ideal time to plant**
Mid-February

ZONE 10

30 F to 40 F
(-1.1 C to 4.4 C)

Includes Coastal Southern California, South Florida and parts of Hawaii.

✱ **Ideal time to plant**
Mid-January

ZONE 11

40 F to 50 F
(4.4 C to 10 C)

Primarily found in Hawaii and some parts of South Florida.

✱ **Ideal time to plant**
Anytime

ZONE 12

50 F to 60 F
(10 C to 15.6 C)

Limited to parts of Hawaii and tropical U.S. territories.

✱ **Ideal time to plant**
Anytime

ZONE 13

60 F to 70 F
(15.6 C to 21.1 C)

Rare in the continental U.S., this zone is found mostly in tropical territories such as Puerto Rico and Guam.

✱ **Ideal time to plant**
Anytime

The idea of dividing areas into planting zones has been around for close to 100 years. In 1927, Alfred Rehder, a botanist at the Arnold Arboretum at Harvard University, produced a map that classified various areas of the United States into zones based on the lowest winter temperatures.

In 1960, the USDA further developed the idea and published its first official Plant

Hardiness Zone Map. Back then, the map included 10 zones based on the average annual minimum temperature. It provided the country's farmers and gardeners with a tool to help them choose which plants were likely to survive in their areas. The maps are revised as climate data changes. The Plant Hardiness Zone map has been updated periodically in 1990,

2012, and most recently in 2023.

Today, the map includes 13 different planting zones, ranging from the coldest (Zone 1) to the warmest (Zone 13). Each zone is further divided into 10-degree half-zones (A and B), with A representing the colder half and B the warmer half.

Many countries and areas have developed their own plant hardiness zone

maps such as Canada, United Kingdom, Australia, New Zealand, South Korea, China, Japan and the European Union.

HOW TO USE THE MAP

It's easy: On the map, just find the area where you live. You can also use the online USDA Plant Hardiness Zone Map found at planthardiness.ars.usda.gov and type in your ZIP code.



Desert climates can limit you in some ways, despite how much sun they receive.



Tropical areas tend to have the longest growing seasons, often running year-round.

Once you know your zone, you can start choosing your plants. Find plants suitable for your zone by checking plant tags, seed packet descriptions, gardening websites or books.

For example, if you identify your area as being in Zone 5, you can grow plants from

Zones 1-5, but Zone 6 plants likely won't survive your winters. If you see a plant that you like but the plant tag shows it is hardy in Zones 6-9, that plant would only survive as an annual in your Zone 5 area. To reiterate, you can grow perennials that are rated for your zone and zones below

yours. If you've ever read a seed packet or plant ID tag, you've likely come across its zone description.

On the other hand, if you live in the warmer zones such as Zone 9, your climate may be too warm for plants that are more suitable for Zone 1 or 2. Technically, they should be able to

grow in your zone, but they may not thrive if they are more suited to the colder climates.

Choosing your plants according to your hardiness zone ensures they are suitable for your climate and reduce the risk of crop failure. Knowing your plant hardiness zone also helps you maximize your crop yields and plant health. Since you are choosing plants that are likely to thrive in your area, you're able to save money and avoid wasting your gardening efforts.

IDEAL TIME TO PLANT: ANYTIME

As every gardener has experienced, the successful growth of plants is influenced by other factors besides temperature, such as how much sunlight it receives, soil type, rainfall, humidity, winds, snowfall and shade. The plant's health, size, landscape orientation, elevation and planting conditions also affect its survival.

Use the zone maps as a guideline for choosing plants, rather than an absolute rule. Whether you're an experienced or novice gardener, using Plant Hardiness Zone Maps will help you succeed in your gardening efforts.



Understanding how to create a microclimate is a great weapon in your arsenal.

MICROCLIMATES

Each planting zone can exhibit unique variations in elevation, man-made structures, bodies of water, vegetation or ground cover. For example, you could have a shady area under a tree in your garden, which results in a much lower temperature than the

rest of your zone. Or your garden could be in a valley as opposed to on a hilltop, which gets much more sun. You could have a tree planted next to a wall or fence that protects it from harsh winds and direct sun. You might find that your yard temps run colder or warmer than local

weather forecasts.

Gardeners need to recognize microclimates in their yards or gardens. Some microclimates may have such an impact as to change their actual growing zones, therefore you must use this to your advantage.

Bernie Carr is the founder of apartmentprepper.com, a blog about family preparedness in an apartment setting. Her books include *The Prepper's Pocket Guide: 101 Easy Things You Can Do to Ready Your Home for a Disaster*, *Jake and Miller's Big Adventure*, *The Penny-Pinching Prepper* and *How to Prepare for Emergencies on a \$50 Budget*. Her latest e-book, *Frugal DIY*, is available on Amazon.

PO-TAY-TO, PO-TAH-TO

Everyone's favorite starch



BY ANGELINE HAWKES



Don't wash potatoes until
you're ready to cook them.

**WHAT FOOD IS INEXPENSIVE,
GLUTEN-FREE, FAT-FREE,
CHOLESTEROL-FREE,
SODIUM-FREE, LOW IN
CALORIES AND IS ALL ABOARD
THE POPULAR PLANT-BASED
EXPRESS? THE POTATO!**

Potatoes (*Solanum tuberosum*) are the fifth largest crop in the world, following corn, rice, sugar cane and wheat. Believe it or not, the potato helped settle the world. Originating in the Peruvian-Bolivian Andes around 6,000 years ago, the potato plant was grown by the Incas. In the mid-1500s, Spanish explorers “visiting” Peru took the potatoes back to Europe, and three decades later Spanish farmers were exporting the root vegetable throughout the Spanish empire.

Through the mid-1800s, when a fungus known as *Phytophthora infestans* (potato blight) destroyed millions of acres of potatoes in Ireland, over a million people perished from starvation and 2 million immigrated to the United States. With over 150,000 Irish immigrants recruited into the Northern armies during the Civil War, the lowly potato might have helped determine the outcome of America’s future.

**VARIETIES & TYPES
OF POTATOES**

The International Potato Center in Peru documents about 5,000 varieties of potatoes. Potato skin ranges from browns to purple and the internal flesh can be purple, white or yellow.

There are seven general types of potatoes: fingerlings, petites, purples, reds, russets, whites and yellows.

✱ **Fingerling potatoes** grow no more than 4 inches long and are finger-shaped. The waxy skin can be red, orange, purple or white and the flesh often matches the external skin color. These potatoes have a lower starch content.

✱ **Petites are bite-size potatoes.** These are served whole and unpeeled.

✱ **Purples** range from small to medium and have dark purple to reddish-blue skins. The flesh varies among shades of blue, lavender, pink or white. They are firm and retain their color. Some

**THESE WILL STORE
INCREDIBLY WELL
FOR LONG PERIODS
OF TIME WITH JUST
A LITTLE PREP!**

describe the taste of a purple potato as nutty.

✦ **Reds** are round to oblong, small to medium-size waxy potatoes. This potato boasts thin red skin with white flesh. These are great choices for any recipe where you wish the potato to retain firmness. Red potatoes have a lower starch content.

✦ **Russets (also known as Idaho potatoes)** range

from medium to large and are oblong or oval with light to medium brown skin and white to light yellow flesh. This starchy potato is the best potato for baking, but when boiled it quickly breaks down.

✦ **Whites (All-Purpose)** are a small to medium variety with tan skin and white flesh. The skin isn't too thick. These potatoes aren't too starchy and are good for most recipes. The

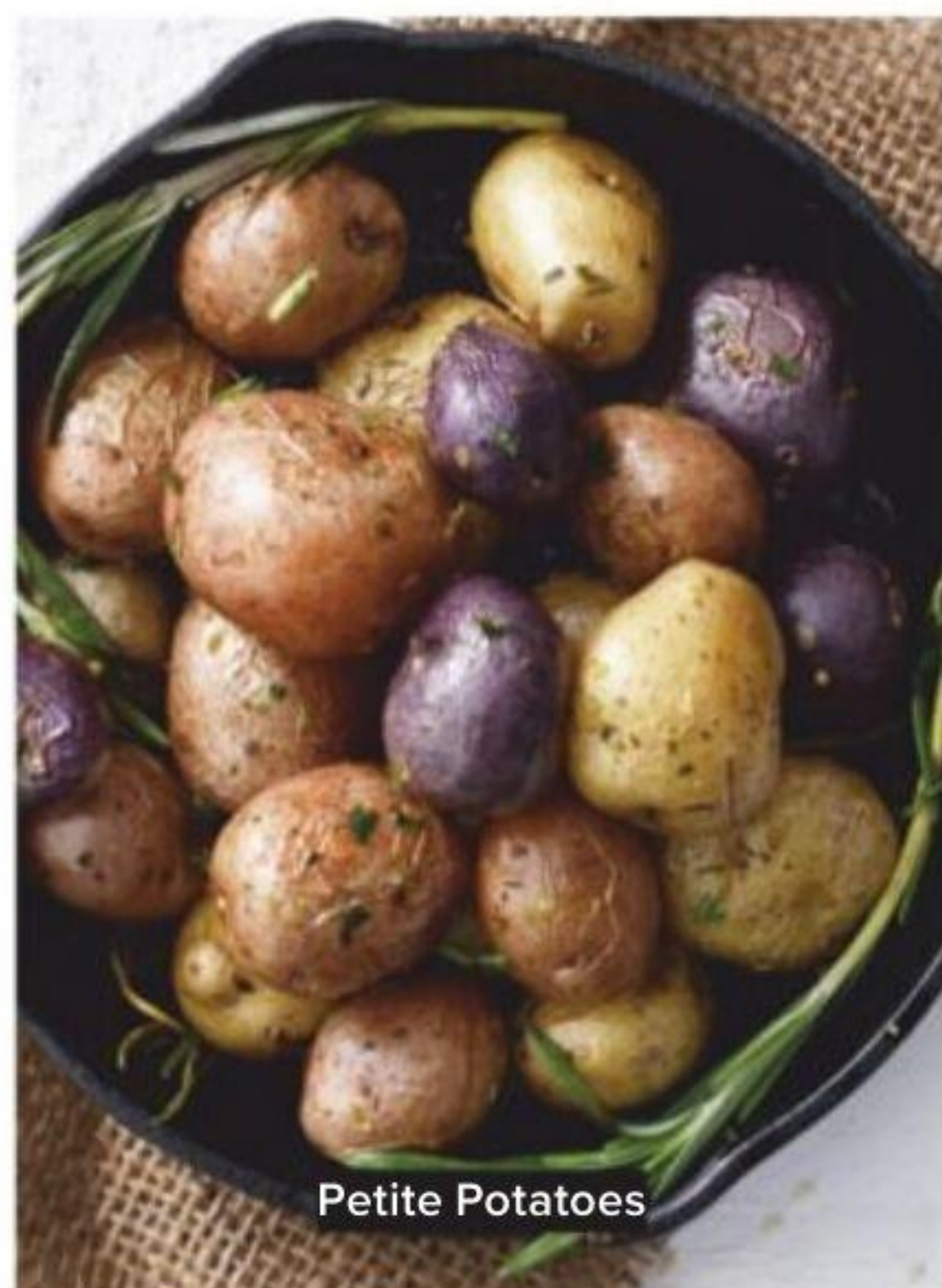
Yukon Gold is a popular version that's a cross between a white and yellow potato.

✦ **Yellows (All-Purpose)** vary from small to large and are round or oblong. The skin is lighter in hue, from tan to golden. The flesh is also yellowish to golden and isn't starchy.

CHOOSING THE POTATO

Early varieties, such as Red Gold, can be harvested in 75 to 90

days. Early varieties aren't good for long term storage due to their thin skin. Midseason varieties, such as Yukon Gold, may be harvested in 95 to 110 days. Late-season varieties can be harvested in 120 to 160 days. With their thick skin, these are the potatoes for long-term storage. Potatoes are both determinate (grows one crop in one layer and doesn't require hilling) and indeterminate (grows



Petite Potatoes



Purple Potatoes



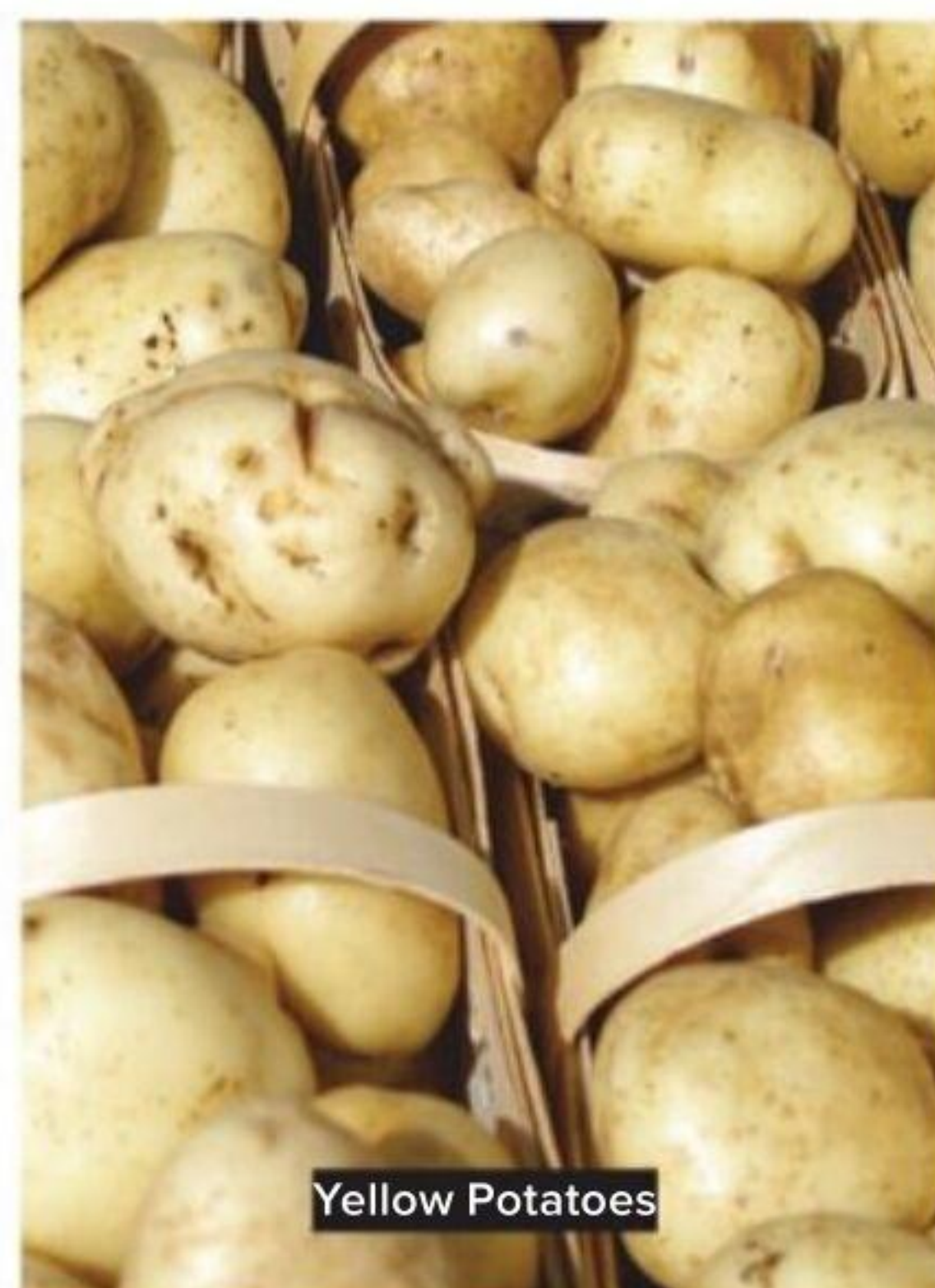
Red Potatoes



Russet Potatoes



White Potatoes



Yellow Potatoes

multiple crops until the first frost kills the plant, benefits from hilling, and grows tubers in multiple layers). Choose determinate varieties for raised beds or container gardening where the soil isn't deep.

PLANTING POTATOES

Seed potatoes may be purchased from gardening centers. Avoid using potatoes purchased at the grocery store, as these crops are treated with fungicides that prohibit sprouting. Cut seed potatoes into 1 ½-inch cubes, each possessing one to three eyes (buds). Allow the cubes to dry for two days to prevent rot once planted. The soil temperature should be between 45 F and 80 F (higher temperatures interfere with potato development).

Depending on your zone, plant between March 15 and May 1. Well-drained, acidic soil with a pH of 6.0-6.5 is recommended, as is a location with full sunlight for six to 10 hours a day. Plant seed pieces cut-side down/eyes up, about 5 inches deep, and spaced 12 inches apart. Rows should be spaced about 3 feet apart. Water via a soaker hose. Avoid watering the leaves to reduce diseases, such as blight. Tip: If the leaves are yellow, you watered too much. If the leaves are brown, water more. Once the potato plant reaches about 6 inches

tall, begin "hilling" the plant. This requires mounding soil around the stem of the plant as it continues to grow. Keep one-third of the plant buried. As the plant grows, continue to mound soil around the stem. This encourages multiple layers of potato production and protects the potatoes from sunlight, which "greens" the tubers, causing

two weeks after the foliage begins dying back. This encourages thick skin growth. Indeterminate potato varieties will continue growing and producing until the first frost. To harvest, use a garden implement to loosen the soil around the potatoes and remove the tubers from the ground.

Once harvested, clean the soil from the

the coals for about an hour. Replace the coals with red ones as they blacken. Baking a potato in an oven may be done with or without foil. The easiest method is to skewer the potato(es) on a metal skewer and place directly on the oven rack. Or butter, puncture and wrap in foil and place on the oven rack. Bake at 400 F for about an hour.



Plant potato pieces about 5 inches deep and about 12 inches apart in rows spaced about 3 feet apart.

them to produce a toxic compound known as solanine (which causes nausea if ingested in large quantities).

HARVESTING POTATOES

Most potatoes are ready to harvest when the foliage begins dying. If storage is the goal, allow potatoes to remain in the soil for

potatoes, but don't wash them. Place them in a dry, cool, dark, protected location (such as a garage) for two weeks. Curing potatoes lengthens storage time.

BAKING AND COOKING

Bake a potato in the red coals of a fire by wrapping a greased, punctured potato in foil and burying it in

PRESERVING POTATOES

There are many ways to preserve the potato harvest.

✦ **Canning potatoes** requires a pressure canner because potatoes are low in acid. Can potatoes in chunks or quarters for best results.

✦ **Dehydrating potatoes** can be done with a

RECIPE DRIED POTATO SOUP IN A JAR

This mix also stores well on the shelf.

Ingredients

- ✦ 2 cups dry milk
- ✦ 2 cups dehydrated potato flakes or instant mashed potatoes
- ✦ 2 tablespoons chicken bouillon powder/granules
- ✦ 1 tablespoon butter powder
- ✦ 3 tablespoons dried minced onion
- ✦ 1 teaspoon dried minced chives
- ✦ 1 teaspoon dried parsley
- ✦ 1 teaspoon seasoning salt
- ✦ 1 teaspoon garlic powder
- ✦ ¼ teaspoon dried thyme flakes
- ✦ ¼ teaspoon ground black or white pepper
- ✦ ½ cup cheddar cheese powder, optional

Mix all ingredients and place in a 1-quart jar with an airtight lid. To prepare soup: Add ½ cup mix to 1 cup boiling milk or water. Stir and allow to set for 2-3 minutes. Optional toppings: shredded cheese, scallions, bacon crumbles, sour cream.

dehydrator or in the oven. Sliced, shredded or cubed potatoes work best. Aim for ¼-inch-thick slices or ½-inch cubes. Peel the potatoes and immerse them in water as you go, to reduce black spots that form when the potato flesh reacts with oxygen. Place a layer of potatoes on the rack and dehydrate for about 12 hours or until entirely brittle. To oven dehydrate, line a baking sheet with foil and place a layer of potatoes on it. Put the sheet in the oven, crack the oven door, and set the temperature to 200 F. Bake until entirely brittle. Using either method, allow potatoes to come to room temperature before placing in airtight containers. You can also make dehydrated potato flakes (try them in the recipe, left) by boiling, mashing and spreading potatoes in a very thin layer on a lined baking sheet and drying as above. To rehydrate, mix equal parts water and potatoes and soak for one to two hours. About 1/3 cup of dehydrated potatoes equals 1 cup of fresh potatoes.

✦ **Freezing potatoes** is another storage option.

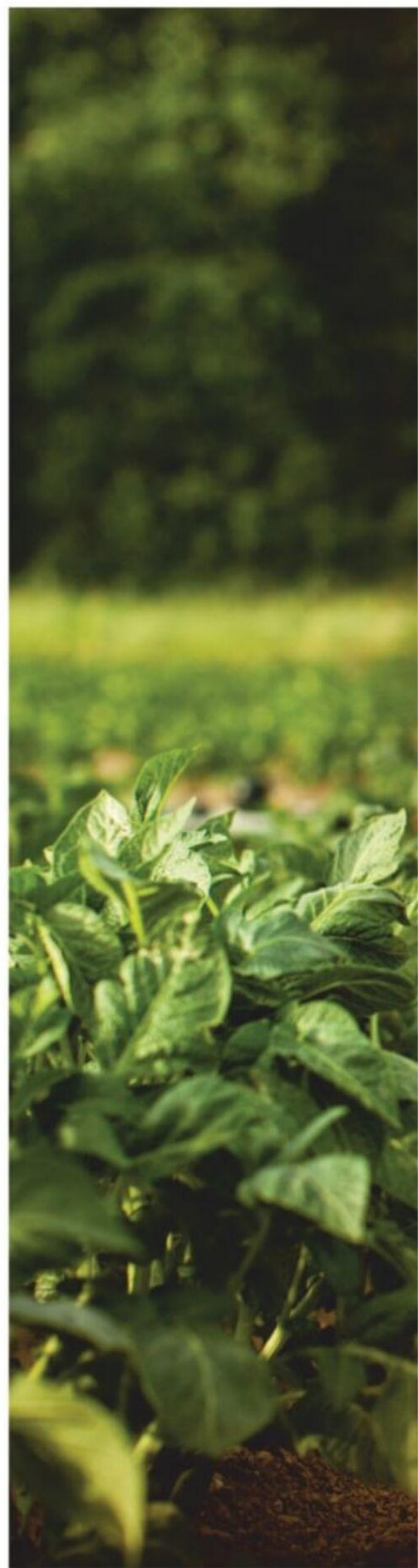
Peel, then shred, cube, slice or quarter potatoes. Blanch the potatoes by immersing them in boiling water for about 3 minutes. Remove the potatoes from the water, drain and place them into ice water. Pat them dry. Arrange potatoes in a single layer on a baking sheet; place in the freezer for at least four hours. Place the frozen potatoes into freezer bags or containers and store in the freezer.

To freeze mashed potatoes, boil and mash them as you usually do, then let them cool. Spread them onto a parchment or foil-lined baking sheet. The layer of potatoes should be no more than 2 inches deep for effective freezing. Freeze for at least four hours, and then place into freezer-safe containers or bags and store in the freezer. Frozen potatoes last for about three to six months in the freezer.

✦ **Cured**, whole potatoes can be stored in well-ventilated mesh bags, boxes or bins in a dark, cool (between 40 F and 55 F), low-humidity location for about six to eight months. Keep them out of sunlight and warmth to keep them from greening.

Angeline Hawkes writes for *Backwoods Survival Guide*, *Backwoods Home Magazine*, *Prepper Survival Guide*, *Self Reliance Magazine* and others.

Visit her YouTube channel, Canterbury Trails Farm: <https://www.youtube.com/c/CanterburyTrailsFarm>





Potatoes are a popular crop as you can grow a lot of them in a fairly small space and they store well.



A photograph of an older man with a grey beard, wearing a blue and white checkered shirt and a brown leather apron. He is focused on a task, using a long-handled tool to work on a piece of wood. The background shows a workshop with wooden beams and another person in a yellow shirt partially visible on the left.

CHAPTER 3

DIY PROJECTS

**WITH SOME BASIC KNOWLEDGE AND A BIT OF
ELBOW GREASE, YOU CAN DO ALMOST ANYTHING.**

MEAT IN THE PANTRY

How to can shelf-stable protein



BY ALICE JONES WEBB



EVEN IF YOU AREN'T THE APRON-WEARING, BREAD-BAKING OR HOMESTEADING SORT, THERE ARE PLENTY OF ADVANTAGES TO CANNING. CANNING MEAT FOR LONG-TERM STORAGE OFFERS MYRIAD BENEFITS THAT EXTEND BEYOND MERE PRESERVATION.



**THIS IS A GREAT
WAY TO TAKE
ADVANTAGE OF
SALES AT THE
STORE, TOO!**

Canning is perfectly safe,
provided you follow
basic precautions.

This method of food preservation has been used for generations and continues to be a reliable and effective way to ensure food security, enhance meal preparation and maintain nutritional quality.

Canning meat is a fantastic way to preserve it for long-term storage, ensuring you have access to protein even when fresh supplies are

unavailable. One of the significant benefits of canning over freezing is that you never have to worry about freezer burn. You also never have to worry about losing all of your stored beef, fish, poultry or wild game to an extended power outage.

Canning meat requires careful attention to detail to ensure safety and quality. This guide will walk you through the steps of safely

canning beef, venison, pork, bison, elk, bear, fish, chicken or pretty much any meat your homesteading heart desires.

RAW PACK OR HOT PACK

There are two methods to choose from when canning meat: raw pack and hot pack.

Raw packing, the simpler of the two methods, is a breeze. All you need to do is pack cuts of raw meat

into your jars and get canning. The meat creates its own broth during the canning process. When you're done, you'll also have fewer dishes to wash, making the process even more hassle-free.

Processing using the raw-pack method takes extra time, and the result may not be as aesthetically appealing. Because meat shrinks during cooking, you may also have less meat and more liquid in the jar.

Trim as much fat from the meat as possible before canning.



The hot-pack method requires packing partially cooked meat into your canning jars. This precooking step helps eliminate some of the natural fat content and results in a different texture and appearance of the final product.

UNDER PRESSURE

No matter which method you choose, using a pressure canner for processing meats is crucial. This can be purchased at most big-box retailers or online. Depending on the model and size, they run about \$100 to \$200 or so. Since meat is a low-acid food, regular water bath canning is just not going to cut it. Boiling water alone will not reach a high enough temperature to kill off dangerous food-spoiling bacteria, no matter how long you process your jars.

SELECTING THE RIGHT CUTS

Choosing the right meat for canning is crucial. Always use the freshest meat possible. While it can be tempting to buy large quantities of highly reduced meat at the grocery store for canning, you should avoid any cuts that show signs of spoilage. Avoid meats with any discoloration, surface sliminess or off-odors.

Lean cuts work best for canning because excess fat can interfere with sealing and



spoilage. You should trim away visible fat before processing, and you should cut meat into uniform pieces to ensure even cooking.

safety, proper sealing and long-term storage when canning meat. Mason jars are the most common. They are made from tempered

jars can be reused over and over, which is a significant cost benefit. Whether you're using brand-new or recycled jars, check for

ALL MEAT MUST BE PRESSURE-CANNED, BECAUSE IT IS A LOW-ACID FOOD. WATER BATH CANNING WILL NOT PROVIDE IN A SAFE TO STORE RESULT.

Stick to fresh meats for canning. Stay away from cured or smoked meats, as these can behave unpredictably during canning.

PREPPING THE JARS

Choosing the correct type of jars ensures

glass and are designed to withstand the high temperatures and pressure used in the canning process. Choose high-quality jars from reputable brands like Ball, Kerr or Bernardin for the best results.

Quality canning

cracks, chips or defects, especially around the rim, as these can prevent proper sealing.

Clean the jars thoroughly with hot, soapy water, rinse well, and keep them hot until you're ready to fill them to avoid contamination.



A jar lifter is advisable, as the jars are going to be hot when you take them out of the pressure canner.

GETTING DOWN TO BUSINESS

If you're using the hot-pack method, begin by lightly browning your chunks of meat. If your cuts are especially lean, you may need to add a bit of bacon grease, lard or coconut oil to prevent sticking. The goal here isn't to cook the meat through. You want it to go into the jars mostly raw in the middle.

Loosely pack the hot meat into hot canning jars and add boiling water, broth or tomato juice to the jars to cover the meat.

If you are using the raw-pack method, lightly fill your jars with raw cubes. You can add hot liquid, but it isn't necessary. The meat will produce its own juice during the canning process, so you don't want to go overboard if you're adding broth to the mix. No matter your chosen method, you should leave 1 inch of empty headspace at the top of each jar.

For extra flavor, you can add 1 teaspoon of canning salt to quart jars or 1/2 teaspoon to pint jars. Then, run a bubble remover or a nonmetal utensil around the inside of the jar to remove air bubbles.

Before applying the canning lids, wipe the jar rims with a cloth dampened with white vinegar to remove any residual liquid or grease that could

prevent a proper seal. Place sterilized lids on the jars and screw the bands on finger-tight.

Process in a steam pressure canner according to the manufacturer's instructions. Pint jars typically require 75 minutes at 10 pounds of pressure, while quart jars need 90 minutes. If you are more than 1,000 feet above sea level, you should increase the pressure to 15 pounds.

After processing, when jars have cooled for 12 to 24 hours, check the seals by pressing the center of each lid. The jar is properly sealed if the lid does not flex up and down. Any unsealed jars should be refrigerated and used within five to seven days or reprocessed with new lids.

Label the jars with the date and contents. Canned meat is best stored in a cool, dark place. Low kitchen cabinets work well if you don't have a dedicated pantry. Regularly inspect stored jars for signs of spoilage, such as bulging lids, leaks or off-smells. Discard any jars that show signs of spoilage. It's better to be safe than sorry. Although extremely rare, spoiled canned meat can contain dangerous *Clostridium botulinum* bacteria.

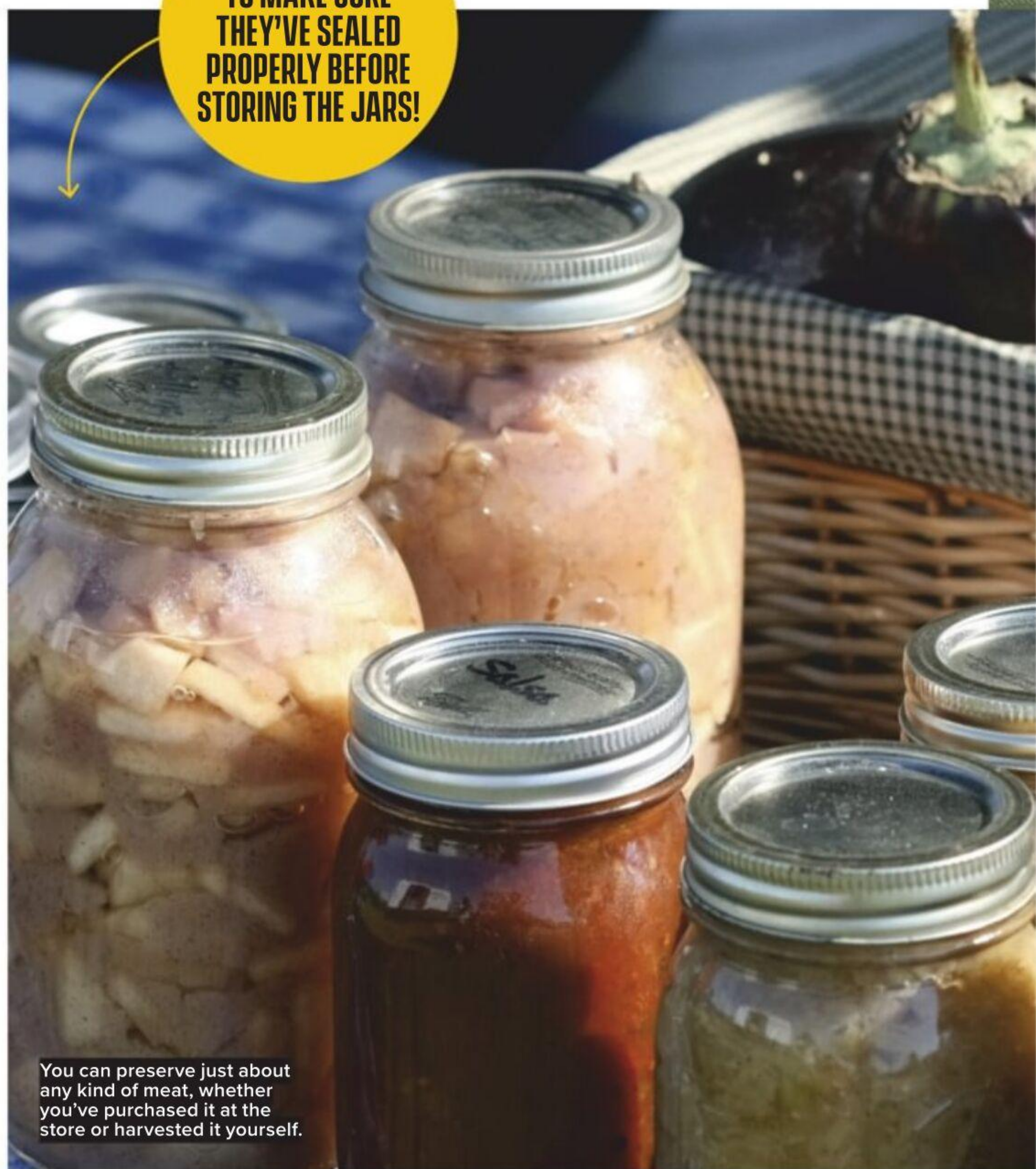
Consuming this bacterium can lead to botulism, a serious illness that can lead to paralysis and death if left untreated.

Canning meat for long-term storage offers several benefits, from convenience and economic savings

to food security. Not only is canned meat delicious, but it also supports sustainable living, enhances self-sufficiency and preserves traditional practices. Whether you are canning venison, beef, pork, chicken or other meats,

following proper canning procedures ensures the safety and quality of your food supply. Embrace the advantages of canning meat and enjoy the rewards of always having a reliable, healthy and delicious source of protein right at your fingertips.

**CHECK THE LIDS
TO MAKE SURE
THEY'VE SEALED
PROPERLY BEFORE
STORING THE JARS!**



You can preserve just about any kind of meat, whether you've purchased it at the store or harvested it yourself.

Alice Jones Webb is a freelance writer, avid bowhunter, happy camper and freethinking rebel. She lives in rural North Carolina with her nonhunting husband, a codependent dog and a well-stocked chest freezer.

Many people might be surprised at just how many common plants have healing properties.

NATURE'S



PHARMACY

Using natural topical disinfectants



BY ANGELINE HAWKES



THERE ARE NUMEROUS REASONS TO GO THE NATURAL ROUTE FOR TREATMENT OF MINOR WOUNDS. YOU MIGHT BE OUT OF ANTIBIOTIC OINTMENT OR TRYING TO SAVE MONEY. WOUND CARE PRODUCTS ARE A HUGE GLOBAL BUSINESS WORTH ABOUT \$22 BILLION A YEAR—AND THE PRODUCTS AREN'T ALWAYS AFFORDABLE.

Natural wound treatment goes back thousands of years and has roots in every culture. Studies show that when a wound is kept clean, moist and covered, healing is faster.

First things first: Clean the wound as quickly as possible. Rinse the wound with clean water for about five minutes to flush out

bacteria and debris. If you can introduce soap without touching the wound (such as a liquid soap), so much the better. Gently pat the area dry.

HONEY

Honey has been used since ancient times to treat wounds. It's antibacterial and anti-inflammatory, and its acidic pH levels (between 3.2 and 4.5) encourage healing. Honey works to heal wounds in several ways. The acidic pH triggers blood to release oxygen and the sugar in honey dehydrates bacteria to the point of reducing or killing them. The same thing that dries out bacteria also reduces water in the wound, thus reducing inflammation. (Note that raw honey may increase the risk of infection as it is often unfiltered.) To use honey as a topical disinfectant, apply it to a clean bandage (clean cloth, gauze pads or adhesive bandage), then apply the bandage to the wound. Honey may also be applied directly to the wound. Change the bandage if wound drainage penetrates the bandage, or a minimum of every 24 hours. Continue to treat and cover the wound for about five days (or sooner if wound closure is noted). Signs of an allergic reaction to honey: burning from the honey, dizziness, nausea, shortness of



Honey has so many benefits beyond just sweetening tea.

breath and swelling at the wound site. If an allergic reaction is suspected, immediately clean the honey from the wound and seek medical attention.

PETROLEUM JELLY

The Academy of Dermatology Association recommends petroleum jelly as the best topical treatment for minor cuts and scrapes. Petroleum jelly helps the skin stay moist and creates a barrier which inhibits bacterial growth. To a clean and dried wound, gently apply petroleum jelly (use a cotton swab, cotton pad or clean finger). Cover the wound with a bandage and change it daily (or more if drainage is noticed on the dressing). If a bandage becomes soiled or wet, change it immediately. Treat the wound until a scab develops. Once a scab is noted, leave the wound uncovered and don't remove the scab—it will fall off when it's ready.

CALENDULA, ECHINACEA AND YARROW

These medicinal flowering herbs can be used alone or combined and can be used as a rinse, a topical paste or an ointment/salve.

✦ **Calendula (*Calendula officinalis*)**, a plant from the Asteraceae (daisy/aster) family, is also called a pot marigold. Calendula possesses

antibacterial, antifungal, anti-inflammatory, antimicrobial and antiseptic properties when the petals are used to treat wounds and burns. This plant has been documented as a medicinal flower since the 12th century and has been approved by the Food and Drug Administration for cosmetic and medical uses. It contains high amounts of antioxidants known as flavonoids that protect cells from damage, aid in tissue growth, and fight bacteria. Dehydrate the flower petals and store them in an airtight container in a dark

location for up to three years. People allergic to ragweed and pollen may have allergic reactions to calendula.

✦ **Echinacea, or purple coneflower (*Echinacea purpurea*)**, is another member of the Asteraceae family. The flower, leaf and root are used medicinally. Documentation of its benefits in wound treatment goes back hundreds of years and spans many cultures. Native Americans applied echinacea paste to wounds to prevent infection. A 1978 German medical study demonstrated an 85.5%

healing success rate with the application of a topical echinacea balm on 4,598 patients presenting with a variety of wounds. Echinacea contains antibacterial properties and helps increase white blood cell counts to fight infection.

✦ **Yarrow (*Achillea millefolium* L.)** is indigenous to the Northern Hemisphere and has been medically used by many cultures throughout the centuries. The flowers, leaves and stems are used. Yarrow contains antibacterial, anti-inflammatory,



There are a few different kinds of balms or ointments you can make to help the healing process.

antioxidant, antiseptic, antispasmodic and astringent properties that aid in healing.

Yarrow powder or paste will stop minor bleeding almost immediately. Yarrow is a popular ingredient in many cosmetic and medicinal products.

HERBAL PASTE

To make a topical paste, use dried or fresh calendula, echinacea or yarrow, or any combination of the three.

✱ For dried herbs

Place ½ cup dried herbs into a coffee grinder and pulverize into a fine powder. Store the powder in an airtight container. Mix a small amount of powder with enough honey to form a paste.

✱ **For fresh herbs** Finely chop herbs and place them into a blender for about 15 minutes until the herbs reach paste form. Mix with a small amount of honey to smooth the paste. Fresh herbal mixtures should be stored in the refrigerator.

Apply the paste to the wound or to a bandage applied to the wound. To keep plant particles out of a deeper cut, apply a gauze pouch containing paste to the wound: Put a teaspoon of paste in the center of a gauze square and form a pouch by folding up the edges. Place this pouch on the wound and

apply a bandage to hold it in position. When changing bandages, rinse the wound to remove residual paste. Change the bandage two to three times daily.

CLEANSING HERBAL RINSE

Use calendula, echinacea and/or yarrow to create a rinse for minor wounds. Use this in the place of water to rinse a wound. Steep dried or fresh herbs in boiling water, covered, for 15 minutes (30 minutes if using echinacea root, unless previously ground into a powder). Strain the herbs from the liquid. Store the liquid in an airtight container in the refrigerator. Calendula tea/rinse may also be used as a mouthwash to treat gum and mouth sores.

SALVE/OINTMENT

Use calendula, echinacea or yarrow to create this simple salve. First, make the infused oil by placing 1/3 to 1/2 cup dried or fresh chopped plant parts into a pint canning jar. Fill the jar with 1 to 2 cups of olive oil. Place it in a sunny window for two weeks. Strain the herbs from the oil. Once the infused oil is made, pour ½ cup oil into a double boiler and add 1 tablespoon of beeswax. Stir the mixture until the wax melts. Pour the salve into containers and allow it to cool. Store the salve in the

refrigerator. Don't use salve on deep wounds as the wax may seal in bacteria.

ALOE VERA

The medical use of aloe vera (*Aloe barbadensis* of the *Lilaceae* family) has been documented for over 2,000 years. The Egyptians referred

to it as “the plant of immortality.” The leaves are filled with a gel that promotes healing through cellular regeneration and collagen production (a healing protein). Simply cut off a leaf and extract the gel. Aloe vera has antibacterial, anti-inflammatory,

WHEN TO CONTACT A DOCTOR

Sometimes despite treatment, infection occurs. If any are observed, contact a physician.

✱ **Burning or heat** sensation at wound site

✱ **Fever**

✱ **Increasing redness** rather than improving skin color (especially colored/red streaks spreading from the wound area)

✱ **Increased tenderness** or pain 48 hours or more after the wound

✱ **Pus** (oozing, weeping, draining—usually cloudy, yellow to green in color)

✱ **Swelling**

✱ **Unexplained swollen lymph glands/nodes**

Many kitchens have an aloe vera plant on a window ledge, just in case of burns.



antimicrobial and antioxidant properties. Many medical studies have been conducted on the abilities of aloe vera to treat wounds, burns and skin conditions. One study showed a 29% faster healing time for wounds treated with its gel. Use it by applying the gel directly to a

wound, or to a bandage applied to a wound.

GARLIC PASTE

Allicin is a compound contained in garlic that promotes cellular growth. It is anti-inflammatory and antimicrobial. Evidence of garlic discovered in remnants of ancient

mixtures suggests its medicinal use throughout history. Crushed garlic cloves may be applied to a wound, or a paste of crushed garlic cloves and olive oil may be mixed and applied to the wound or bandage. Leave the crushed garlic cloves or paste on

a wound for 30 minutes and then rinse and dry. This treatment should be applied two to three times a day for up to two weeks, stopping when there are signs of healing. Garlic shouldn't remain on skin longer than 30 minutes as chemical burns may occur.

ALOE IS AMAZINGLY EFFECTIVE ON BURNS, ESPECIALLY SUNBURNS, AND SPEEDS HEALING!



NO SOIL NEEDED

Great produce without digging

»»» BY K.H. KOEHLER «««

**THERE IS A SOILLESS CULTIVATION
TECHNIQUE THAT TAKES A UNIQUE APPROACH
TO PLANT GROWTH BY UTILIZING NUTRIENT-
ENRICHED WATER AS A SUBSTITUTE FOR
TRADITIONAL SOIL-BASED AGRICULTURE.**

Instead of relying on the traditional growth provided by soil, hydroponic gardening utilizes containers, channels or a system of pipes to immerse the roots of plants directly into a water-based solution. It allows for precise control over nutrients, water supply, pH and the overall environment.

It offers several advantages. It utilizes

less space than more traditional agricultural methods and fosters accelerated growth. With a shorter grow time, it can produce higher yields compared to conventional soil-based gardening. It provides plants with optimal access to nutrients, water and oxygen, and by controlling the environment in which plants grow, disease and pests, often fostered by

soil, are less likely to affect your yield.

Hydroponic gardening allows for both indoor and outdoor cultivation. This versatility makes it an ideal choice for small-scale cultivators, hobbyists and even commercial growers. Chances are good you have already purchased hydroponically cultivated produce from your local supermarket.

It is particularly well suited for

A person wearing a red and black plaid shirt is holding a small green plant with both hands. The plant has several large, rounded leaves and a small root ball of soil. The background is a blurred green field. A yellow circular callout with a thin yellow arrow pointing to the plant is located in the upper right. A small text box is in the bottom right corner.

**YOU CAN
ABSOLUTELY GROW
A TON OF PLANTS
WITHOUT EVER
DIGGING A HOLE!**

This can be a great method to consider if you don't have a large yard for a traditional garden at home.

individuals with an interest in year-round food sustainability but limited space. Whether you are an absolute beginner or have experimented in the past with hydroponics, below you will find some simple ways to get up and running quickly.

CHOOSE YOUR HYDROPONIC SYSTEM

Hydroponic systems come in a large variety

of different styles—everything from tabletop hobby models to agricultural systems large enough to fill a greenhouse. When choosing the system best suited to your needs, consider the following factors.

✦ **The type of plants you mean to grow** Some hydroponic systems are better suited for certain types of plants than others. For example,

deep water culture systems are ideal for leafy greens and fruiting crops such as tomatoes, strawberries, blueberries, cucumbers and peppers, while nutrient film technique systems are excellent for microgreens.

✦ **The space available** Hydroponic systems come in all shapes and sizes, from small, indoor tabletop and rack-mounted systems to

much larger, sprawling, complex systems. You should choose a size that will serve you well as well as fit comfortably in your working space.

✦ **Your budget**

Hydroponic systems, depending on their complexity and moving parts, can range greatly in price. Some small indoor models can cost only around \$50, while others can set you back



PVC pipe can be a great way to build a hydroponic system. It's relatively inexpensive and easy to assemble, given the number of fittings available.

thousands. Choose the system that best fits your budget. If you are just starting out, you may want to experiment with smaller systems first and work your way toward larger and more complex ones.

GATHER YOUR MATERIALS

In addition to your chosen hydroponic system, you will need:

✦ Growing medium

You will need a support system for the roots of your plants. Some of the more common mediums include Rockwool, gravel, hemp fiber, sand, sawdust, perlite and commercial soilless mixtures.

✦ Water reservoir

This will store the water and nutrients that your plants need.

✦ Nutrient solution

This will provide your plants with the essential nutrients they need to grow; it's often sold as liquid plant food.

✦ **Grow light** These are usually LED lights that will aid your plants with photosynthesis.

✦ **Timer** This controls the amount of light your plants receive each day.

SET UP YOUR SYSTEM

Once you have chosen your system and gathered your materials, you should follow the manufacturer's

Some small hydroponic systems can be set up just about anywhere.



instructions to set up your hydroponic system. You may want to take some time reading up on your new system to better understand how it operates.

Fill the water reservoir with water and add the nutrient-rich solution. Mix the solution thoroughly. If you are using a circulating system, check to make certain your moving parts are operating correctly.

Place your seeds or seedlings in the growing containers. Be careful not to damage

the roots if you are potting seedlings.

Set a reliable timer for your grow light so that your plants receive no more than 16 hours of light each day, thus imitating daylight. This will provide your plants with a more natural cycle of light and will help them to photosynthesize.

MONITOR YOUR PLANTS

Check your plants daily for signs of pests, damage or nutrient deficiencies. If you notice any issues, adjust your methods

accordingly. Joining an online group of hydroponic enthusiasts can prove helpful, as you can benefit from others' experience. Be patient. For most beginners, hydroponics can prove to be a learning curve at first.

A WORD ON PLANTS

Certain plant varieties thrive in a hydroponic environment due to their adaptability and growing requirements. Here are some specific varieties that are well suited for hydroponic gardening:

**ONE MORE ADVANTAGE TO HYDROPONICS IS
BEING ABLE TO GROW MANY PLANTS VERTICALLY,
REDUCING THE GARDEN'S FOOTPRINT.**

Harvest what you need and
let the rest continue to grow.

LEAFY GREENS

✦ **Lettuce** Nearly any type of lettuce grows well in a hydroponic environment, but some of the more popular varieties enjoyed by hydroponic farmers include romaine, butter and bibb. Most loose-leaf lettuces will grow well in water.

✦ **Spinach** Spinach thrives in hydroponics. And because it is a hardy, cool-season plant, it can be grown year-round with proper temperature control.

✦ **Kale** Kale is well suited for hydroponic gardening. A hardy plant, it can tolerate a wide range of growing conditions.

✦ **Swiss chard:** Swiss chard grows very well with a hydroponic growing solution designed for greens.

✦ **Arugula:** Like spinach and kale, arugula grows quickly in a hydroponic system.

VEGETABLES

✦ **Tomatoes** Cherry, grape and patio tomatoes are popular choices for hydroponic gardeners due to their compact size and high fruit yield. However, as seasonal plants, they require a good deal of sunlight and heat.

✦ **Cucumbers** Cucumbers are a versatile vegetable that grows well in a variety

of hydroponic systems. They require plenty of water and nutrients.

✦ **Peppers** Both bell and chile peppers are excellent choices for hydroponic gardening. Like tomatoes, they require sunlight and heat.

✦ **Eggplants** Eggplants are uniquely suited to grow in limited hydroponic systems. Like cucumbers, they require plenty of water and nutrients.

HERBS

✦ **Basil and Oregano** Basil and oregano are hardy herbs that grow well in hydroponics. They can even be grown together in the same container.

✦ **Mint** Mint is a fast-growing and hardy plant that can quickly take over a system if not carefully monitored.

✦ **Cilantro** Cilantro, as a unique, cool-season crop, can be grown year-round with proper attention.

✦ **Chives** Chives are a versatile herb that thrives in hydroponics. In addition, if cultivated correctly, it will return year after year.

✦ **Thyme** Thyme is a slower-growing herb but it's a hardy plant and can tolerate a wide range of growing conditions.

FRUITS

✦ **Strawberries** Strawberries are a

popular perennial plant that thrives in a hydroponic environment. They grow well at room temperature.

✦ **Melons** Most melons, including cantaloupe, honeydew and watermelon, thrive in hydroponic gardens, but they must be given enough space, light and good nutrition to grow.

✦ **Blueberries** Blueberries tend to be fickle about the types of soil they prefer to grow in, and that soil can require high amounts of sulfur, so a carefully cultivated hydroponic environment can actually be beneficial for the plants.

✦ **Exotic fruits** Since you can control the temperature and pH of the water, and the type of nutrients you are feeding your plants, it is possible to grow certain exotic fruits such as limes and dragon fruit by mimicking their natural environments.

A transformative approach to plant cultivation may be just what you are looking for. As the world continues to explore innovative new agricultural practices, hydroponic gardening offers a promising solution for meeting the growing demand for food while preserving the environment.

ENVIRONMENTALLY FRIENDLY

The benefits of hydroponic gardening include increased yields and accelerated growth. However, hydroponics also offers a sustainable and environmentally friendly alternative to traditional agriculture. By eliminating the need for soil, hydroponic gardening reduces the ecological footprint

associated with traditional methods. It also conserves water resources significantly, as it requires less water than soil-based gardening. The use of water in containers and channels makes hydroponic gardening an efficient alternative in arid and semi-arid regions where water scarcity is an ongoing concern.

K.H. Koehler is primarily a fiction author but has been a homesteading enthusiast since her teenage years. She is a professional copy editor and graphic designer, and all of her various books are available from Amazon. Visit her site at khkoehler.net.

THE ORIGINAL MAN PURSE

Tips on making your own traditional carryall



BY CRAIG CAUDILL



Chrome-tanned leather (top) has a polished look. For a “rough” look, pigskin (bottom) works well.

A photograph of a vintage, brown leather bag resting on a weathered wooden surface. The bag features a central arrowhead-shaped patch outlined with white stitching. A yellow callout bubble with a pointer directed at the patch contains the text:

**ADORN OR
EMBELLISH THE BAG
SO THAT IT REFLECTS
YOUR UNIQUE
PERSONALITY.**

A possible bag gifted to the author by his father is shown here after 25 years of use.

**I HAVE STUFF.
YOU HAVE STUFF.
FRONTIERSMEN, MOUNTAIN
MEN AND A MULTITUDE OF
OTHERS ALL HAD STUFF.
WHILE EVERYONE'S STUFF
MAY BE A BIT DIFFERENT,
ONE THING IS THE SAME:
WE ALL NEED SOMETHING
TO TOTE IT IN. ONE OF
MY FAVORITE WAYS
TO DO THIS MARRIES
THE HISTORICAL WITH
THE MODERN: A POSSIBLES
BAG OR POUCH.**

PATTERNS

Over the years, I have purchased several books that contain photographs of the actual possibles bags carried by frontiersmen and mountain men. I never pattern mine exactly on theirs unless a person requests it of me for a commissioned piece. I prefer to make one-of-a-kind items, and I don't use patterns when making bags. I mostly use a fly-by-the-seat-of-my-pants method of design, looking at several pouches and then designing one in my head before I start cutting and sewing.

I know a lot of people who make patterns first and work out the kinks while using them. This allows you to cut out the individual pieces, then sew or tape it all together to get an idea of any design changes you might want to incorporate before you



finalize it all. This is a great idea that will save you from cutting up an expensive piece of leather that ends up going to waste. Since I also make knife sheaths and other even smaller

projects, I can reuse my “mistake” pieces and scraps and turn them into something useful.

I use and recommend a modern ink pen or awl to mark out the pieces before cutting them.

When you begin cutting on soft leather, it will start to stretch, and you might wind up with one side longer than the other. If you mark it first, it is easier to cut precisely.

LEATHER

For an initial project, either purchase some leather or trade for some. Next, focus on exactly what you want to make. Before you start, determine whether you want something that holds its shape or not. If you use soft buckskin or something similar, you'll have a pouch in which everything inside is a jumbled mess. I suggest getting something thicker and stiffer, something that's referred to as tooling leather. Even for the buckskin possibles bags I create, I nearly always make their backs out of a thick piece of tooling leather so there is something to help it retain its form.

Typically I choose domestic cow as a starting piece. Since there is so much leather of this type available, you can find it at affordable prices and with very few flaws. Leather made from wild animals often has blemishes. Remember, this was the skin of an animal, so there are likely to be small scratches and such. I do prefer that type for projects in which I am making a historical reproduction. Frontiersmen did not have smooth, tooled leather to utilize. When I make bags to look like what they carried, it needs to look flawed but be functionally sound.

TOOLS

The tools you choose will depend on how modern you want your pouch to look. You really only need a knife to cut the leather out, and maybe a nail or awl to make any holes.

good options to start with. Chisel punches allow you to make multiple holes at one time by punching them through the leather with a hammer. Think of it as having several awls on one tool. If I am doing a commissioned

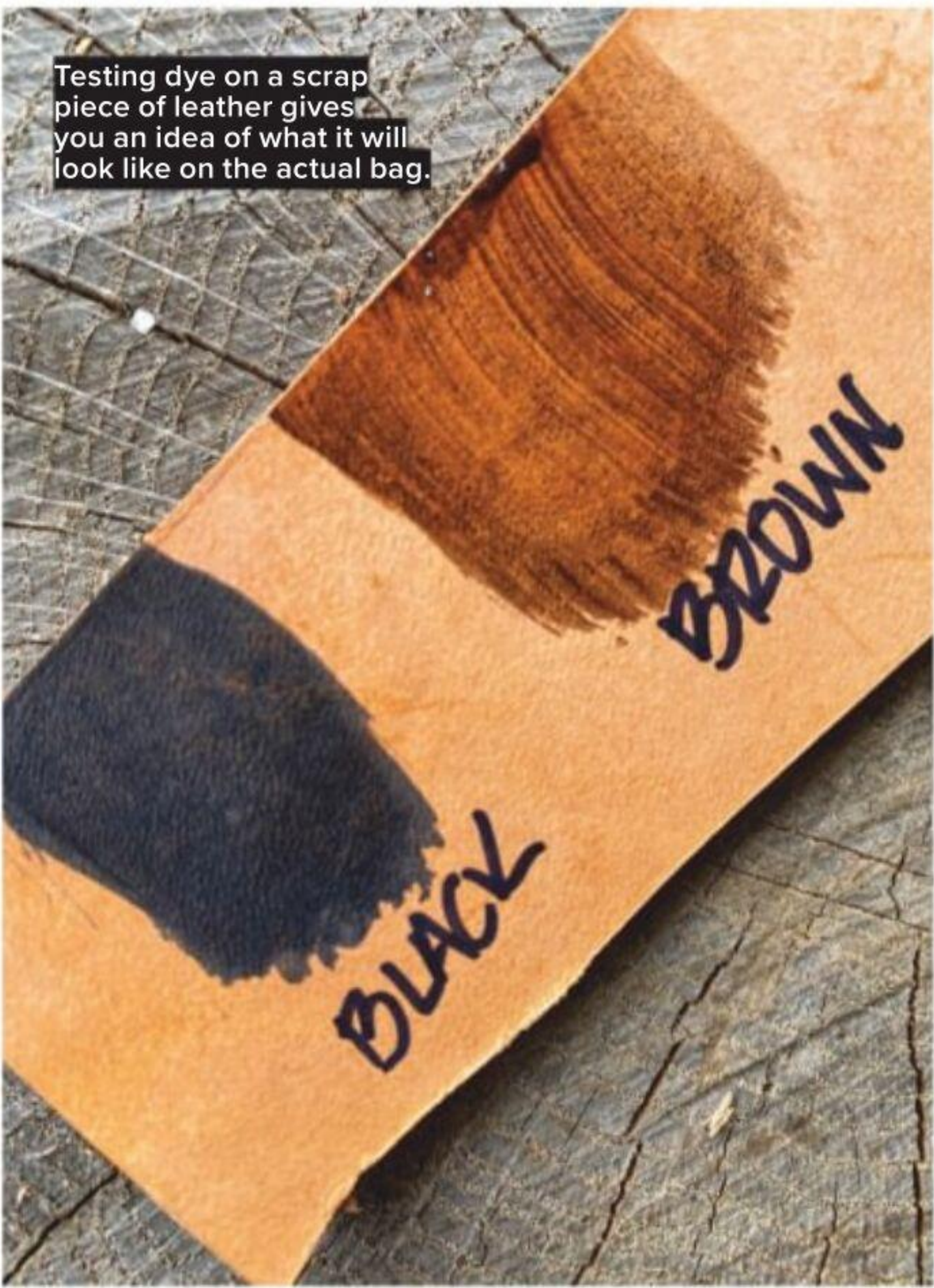
small slit, rather than a circular hole. This seems insignificant, but it's important for pieces that will carry items that you will need to keep dry. If you punch circular holes, it will be easier to sew, but the thread you use to tie it up will not

THE POSSIBLES BAG HAS BEEN IN USE SINCE THE DAYS THE LEGENDARY MOUNTAIN MEN EXPLORED THE UNTAMED WEST.

However, if your budget allows for it, I recommend you invest in some basic leather-making tools: An awl made for leatherwork and chisel punches are

piece that someone wants to appear very neat and clean, I use a chisel punch. It keeps the distance between the holes uniform. It also only makes a

fill that hole completely, which will potentially allow water to seep in. I typically use a rubber mallet and a rubber anvil pad when punching holes. By using the pad, you can strike your awl or punch completely through the leather. You can also use a board, but that tends to dull your punches much more quickly. It's much easier to sew when the openings are clean and go all the way through.



SEWING

I prefer to use waxed thread or simulated sinew. Much like the leather, this serves to save you time and effort in making your cordage. I've used natural sinew and even dogbane before; it does a great job, but that was on projects that needed to look like historical pieces and required a rough look.

LEATHER SUPPLIES

One of the benefits of the modern world is being able to quickly and easily find leather suppliers.

✱ **Amazon.com** has many options.

✱ **Leatherhide store.com** not only sells leather, but also offers a fantastic (and free) buying guide that helps you determine what you need based on your project, budget and its availability.

✱ **Tandyleather.com** has been in business for decades and offers a large, diverse inventory, including many faux options and leathercraft kits. This is a wonderful budget-minded place to purchase leather.

✱ **Theleatherguy.org** is another great online source with a very easy-to-navigate website. It has quite a selection of smooth, chrome-tanned pieces as well as hair-on pieces. If you want to go crazy and scrimshaw a horn (it will look great on that new possibles bag you made), this site has that, too.

STAINING

When I want to make things look traditional, I use walnut hull stain. I gather up walnuts each fall and place the unshelled nuts in a barrel of water. After soaking them for a few weeks, the water will get saturated and become very dark. I then put leather projects in the barrel and let them sit until I get the desired color. This process works even better if you warm up the leather in the sun before placing it in the water. The pores on the leather open up and accept more of the stain.

If you're purchasing a leather stain, you can't go wrong with Fiebing's Leather Dye, which comes in various colors. I tend to mix black and brown together—this is because I'm often making things that are



When punching holes in the leather, protect your work surface with a rubber anvil pad.

supposed to look old and worn. I've also made commissioned projects with only one color.

I suggest you take a scrap piece and test out different colors on it. Write the dye name on the leather and how many coats you used.

It's similar to having paint swatches to help determine the best color to use. This saves you effort and leather in the long run. I've had a project or two on which I did all the necessary work, but the stain looked so bad that the item ended up being unusable. It's good to fine-tune your staining technique before putting it on your final product.

You're sure to enjoy your possibles bag for years. I've used mine to carry frontier accouterments for period reenactments, as well as sandwiches on grouse hunts. Whether it's for yourself, to trade or to sell, it's an inexpensive project you can do with your own hands.



Flat simulated sinew (top) or round waxed thread (below) will pull everything together.

Craig Caudill is the director and lead instructor of Nature Reliance School. He's authored several books and teaches classes in person and online. Visit naturereliance.org for info.



Note the size difference between a typical possible pouch (top) and shotgunner pouches (the two below). Note the color variations: The first and third ones are a natural walnut stain, while the middle one is black/brown.



A person wearing a blue jacket is standing in a snowy forest, holding a large, light-colored rock. In the background, there is a wooden building with a corrugated metal roof. The ground is covered in snow and some low-lying vegetation.

CHAPTER 4

EQUIPMENT

**HUMANS INVENTED TOOLS FOR MANY REASONS—
INCLUDING THAT THEY'RE FUN TO PLAY WITH!**

NEW

PRODUCTS



1

RAMBLER BOOT

This boot is the intersection of form and function. It features a premium full-grain leather upper and an OrthoLite insole to ensure unparalleled comfort. The 5.11 Force Foam heel cushioning provides excellent support. It has an ASTM Slip and oil-resistant rubber outsole to guarantee a strong grip in any terrain. The Rambler is the pinnacle of practicality and tactical excellence.

✱ **MSRP** \$120
511tactical.com

2

WICKED RESCUE

This is a multitasking skin healer. Use it on lips, hands, elbows, feet or anywhere else plagued with dry, cracked or irritated skin. Wicked Rescue soothes and nourishes, providing potent ingredients that prevent transdermal water loss. It contains no preservatives, parabens, petroleum or mineral oil. Wicked Rescue does have vitamin E and shea butter, as well as manuka honey.

✱ **MSRP** \$7
dltrading.com

3

PAKLITE FIELD KNIFE

This is a great option for those seeking a minimalistic, lightweight knife. The skinner-style blade allows for detail work while lessening the chance of puncturing. The skeletal tang reduces the weight to just a few ounces. While it's intended to be a hunting knife, it can certainly serve as a reliable EDC blade no matter what you have planned for the day.

✱ **MSRP** \$54
buckknives.com

The latest and greatest
gadgets and goodies.

»»» BY BSG STAFF »»»

FLEXIBLE SURVIVAL
TOOLS LIKE THIS
CAN BE USED IN ALL
SORTS OF WAYS IN
THE FIELD!



4

CAMP SETUP KIT

This handy kit comes with all you'll need to get your campsite up and running. The Pack Hatchet helps you process firewood as well as pound tent stakes. Once you have the firewood ready, use the Fire Starter to get the blaze going fast. The Stake-Out multitool features a knife blade, small saw, scissors, bottle opener and more, including a stake puller that will be great when it's time break camp

✦ **MSRP** \$100
gerbergear.com



5

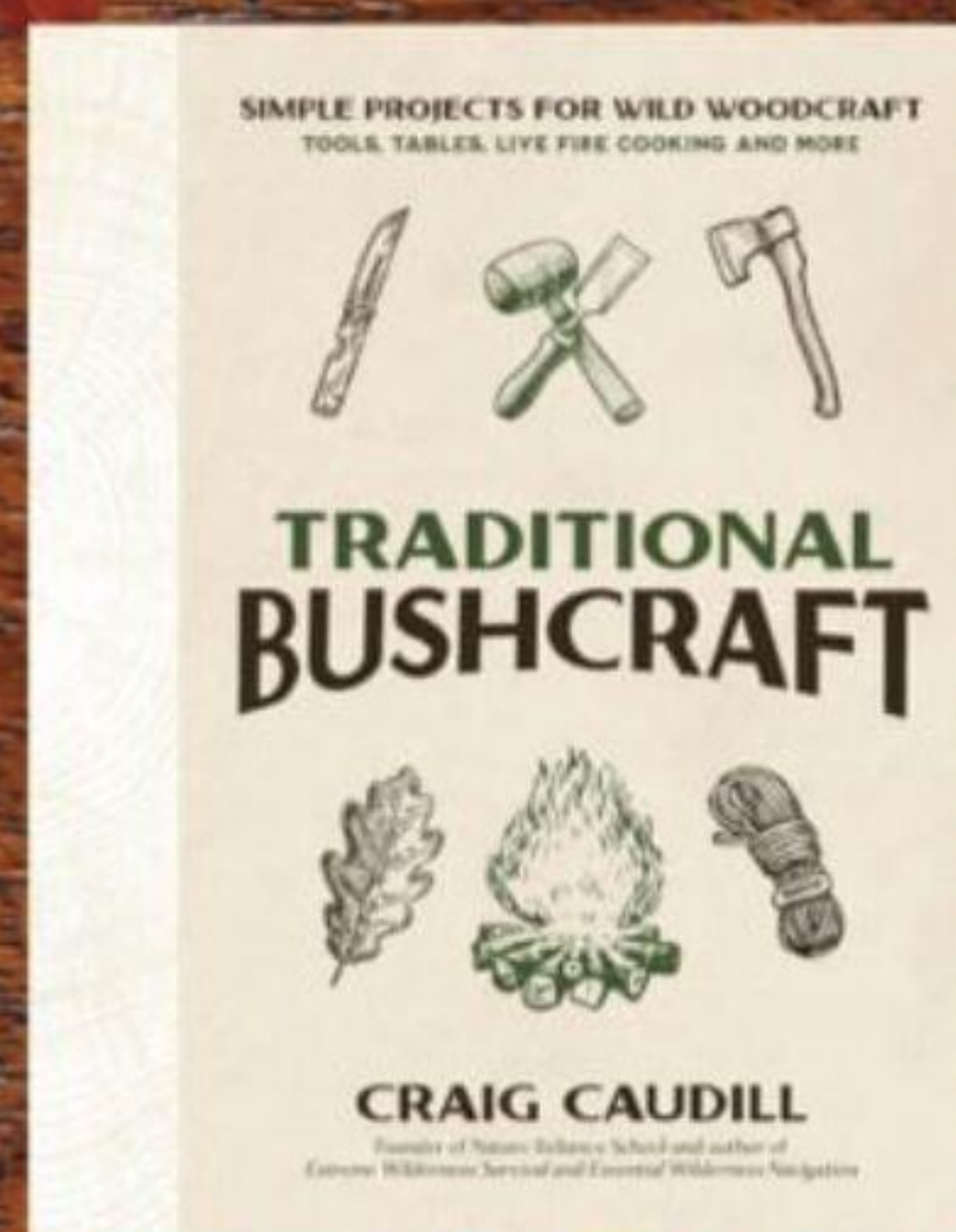
E-LAMS

This brightly colored sil-nylon material is sure to help searchers and rescuers find you, should the need arise. Fully opened, it measures 3 feet on each side, but it can be rolled up and stuffed into the included pouch that's just 2 inches by 3 inches, taking up little space in your pack. It could also be used as a bindle for carrying foraged food or folded into a cravat bandage.

✦ **MSRP** \$50
teameasties.com



6



6

TRADITIONAL BUSHCRAFT

Learn how to use old-fashioned techniques and minimal power tools to craft a variety of projects in the outdoors. Build a simple split-stick figure 4 trap trigger or a full camp bench, wilderness oven or camp utensils. Each one is illustrated with photos showing each step of the process. There are two dozen projects featured in this volume.

✦ **MSRP** \$25
naturereliance.org



7

PERFECT FOR
OUTDOOR
ADVENTURES, THIS
TOWEL IS A TRUE
NECESSITY!

8

9

7

TITAN LONG SPOON

At over 8 inches in length, this spoon will allow you to reach the corners of any dehydrated meal pouch without any trouble at all. Made of titanium, it weighs just 0.7 ounce, roughly half the weight of a similar-sized steel spoon. As a bonus, you can clip on a carabiner for on-the-go hang-ability, keeping it close at hand so you're not searching for it when dinner is ready.

✦ **MSRP** \$18
msrgear.com

8

PERSONAL TOWEL

Made of 50% recycled fabric, this towel takes up minimal space in any pack and delivers maximum absorbency and quick-drying performance. It's capable of absorbing an incredible four times its weight in water. It's machine washable and features Polygiene odor control. It measures 25 inches by 54 inches and weighs just 6.4 ounces.

✦ **MSRP** \$26
packtowl.com

9

SPARK SURVIVAL AND FIRE TOOL

This multifunctional tool combines the best features of flint and steel striking, ferrocerium rod scraping, and a bow drill divot. It has a chisel edge for making precision cuts as well as scraping tinder. It's inspired by the traditional Japanese kiridashi, known for its utilitarian design, and enhanced with features that make it an indispensable companion in the wild.

✦ **MSRP** \$65
naturereliance.org



10

AROUND CAMP KIT

Spend less time worrying about what to pack and more time enjoying your trip. The Tri-Tip Mini Cleaver has two functions: a beveled leading edge for scraping and the full fine-edge knife to easily handle cutting needs. The Armbar Cork multitool has a corkscrew, foil cutter, pry bar, bottle opener and can/package opener. The utensils snap together for storage.

✦ **MSRP** \$100
gerbergear.com

11

LIGHTER HOLDER

This nifty gadget keeps a lighter close at hand for all of your fire lighting needs. It is engineered to fit BIC lighters in both Standard or Mini sizes. It's held in place by friction-fit tension and it won't fall out under normal use. Clip it to your pack strap or a belt loop so you always know where a spare lighter can be found. It's great for bug-out bags and get-home bags, as well as work belts.

✦ **MSRP** \$10
screwpooptool.com

12

PAKLITE CAPE KNIFE

While designed for caping and small game, it would make for a great daily carry knife. It weighs just 1.59 ounces. The drop-point blade provides excellent versatility, allowing it to be used for a wide range of tasks beyond hunting. The minimalist handle provides great ergonomics and a solid grip in any conditions, but it can also be removed for easy cleaning.

✦ **MSRP** \$42
buckknives.com

POWER UP

Devices that juice up your electronics



BY MICHAEL D'ANGONA



Not all power packs are made equal. Be sure to read the fine print.



LOOKS FOR ONES
THAT ARE RUGGED
AND WATER-
RESISTANT, MADE FOR
THE OUTDOORS!

**TECHNOLOGY
REALLY DOES
CHANGE
THE WORLD.
IN JUST A
FEW SHORT
DECADES,
PERSONAL
TECH HAS
INUNDATED
ALMOST ALL
ASPECTS OF
DAILY LIFE—
EVEN IN THE
WORLD OF
THE DEEP
OUTDOORS.**

These dramatic advances in electronic gadgets take the form of a GPS tracker or locator, emergency signaler, electronic compass, and the omnipresent cellphone. However, the one negative to all these modern wonders is that they are powered by a rechargeable battery, which can run out of juice when the device is needed most. The solution to this is simple: Bring along a rechargeable power bank. In today's market, you have plenty of excellent options.

WHY THE NEED?

Usually, the words "modern technology" and "the deep outdoors" don't go together. When you're

far from home, you're probably thinking fire-making, shelter building, and battling the ever-changing elements, not thinking about an illuminated screen on an electronic device. However, these days, you would be wrong. In fact, many devices, aside from your personal cellphone, are meant for deep outdoor use. These include GPS tracking devices, headlamps and flashlights, and high-quality cameras. While



Ones like this are great for car camping.

you may not get a signal in the vast wilderness, your cellphone can aid in so many other areas if it has a charge. It can function as a note-taking tool, a flashlight, a camera to help remember landmarks and terrain, as well as a time-passer by utilizing preloaded games and puzzles.

UNIT SIZE

When choosing a power bank, you have many sizes available to you. When speaking of size, I'm referring to the physical dimensions of the unit, not the internal battery size (more on that later). Power banks are available in sizes that mimic your cellphone all the way up to units that are the size of a large beverage cooler. Naturally, the smaller the unit, the more mobile and versatile it is for traveling, while larger units are meant to be sedentary and useful for larger groups and campsite activities. Keep in mind that smaller units also have far fewer input ports than their larger brothers, meaning that you'll need to make sure your devices are compatible with the input options. Midsize-to-large units offer multiple input ports, so charging many devices at once can save you time. Another decision to make when it comes to physical size is if you want each member of



Be sure to secure any electronics if you're going to be dealing with water, such as when fishing.

your group to have their own personal portable charger, or if it would make sense to opt for one larger unit. This would depend upon your ability to transport the larger power bank, as well as the number of electronic devices that you'll be carrying.

BATTERY SIZE

Battery size is probably the most important aspect of choosing the best power bank for you. Don't believe that the physical size of the unit is proportional to the battery size, because it isn't. Battery size equates to the power inside the unit, and this is usually illustrated with a number found on the unit and/or within the product's description. This number will have a suffix such as mAh or milliamp-hours. Simply put, the bigger the number, the more powerful the unit is and the more recharges your will have for your electronic equipment. Sizes of batteries range from about 2,000 mAh to 12,000 mAh. Not only will a larger battery offer more recharges, but it may be a necessity if you have heavy, power-draining larger devices like big-screen tablets or stand-up lighting for your campsite. To put the charging ability of a variety of battery sizes into perspective, a 5,000 mAh unit will charge a standard cellphone up



A bright color will help you find the power bank when you need it or if it gets dropped.

to one-and-a-half times on a single charge. Doubling the battery size (10,000 mAh), you'll be able to charge a cellphone three times on a single charge, and finally at a whopping 15,000 mAh, you'll be able to charge your phone up to five times before being depleted.

CHARGING AND SPEED OPTIONS

Even though you'll have a power bank, the juice has to come from somewhere. Some



Some backpacks are outfitted with small solar panels.



Double-check what connections are available on the unit before you purchase it, just to make sure it will meet your needs.

A TEXTURED COVER WILL HELP PREVENT IT FROM SLIPPING FROM YOUR FINGERS IN THE RAIN!

units offer a partial charge straight from the box when initially bought, while other will come dead and will need to be charged for a bit before use. The most convenient way of charging is through a traditional wall outlet. Just plug it in and within a short time, it will be ready to use. If you're staying at a cabin with electrical power, a wall outlet will be your fastest means to recharge your power bank. Solar power is another viable source, and one that

can be used nearly anywhere. Solar cells come in a variety of sizes, with some even attaching easily to your backpack for on-the-go recharging. Solar power may take longer to recharge your power bank than a wall outlet, but its convenience and availability throughout the day more than makes up for this small inconvenience. It also should be noted that the type of USB port that you use to charge your bank and your devices will also affect its rate of charging. A 1-amp/5-watt port will offer a slower charging rate than a 2.4-amp/12-watt version, which will allow for optimal charging. The 3.4-amp/17-watt and 4.8-amp/24-watt models are best when charging multiple devices and produce good and better results, respectively.

SUN SUCCESS

Solar panels offer plenty of benefits for recharging your power bank.

✦ **Portability** Solar panels can fold up and store easily in most packs and bags. Additionally, some backpacks come equipped with an integrated solar panel and charging cables for on-the-go recharging of your power bank.

✦ **Money Saver** Though your initial investment may set you back a few bucks, over the long term you'll save money compared to

constantly plugging in at home. The sun's power is free and unlimited.

✦ **Blackout Backup** You may be in an urban environment where power outlets are everywhere, but they are useless in a citywide blackout. Solar panels can help charge all your smaller electronics and create your own personal power grid.

✦ **Eco-Friendly** Solar panels provide a safe and efficient energy source without any dangerous

waste product or residual materials affecting the environment. The sun's power is renewable and inexhaustible, helping to reduce the need for nonrenewable sources.

✦ **Versatility** From a small, pocket-size unit to multiple panels that fold out into a huge array that spans multiple feet, there is a size that suits everyone's needs. Panels can be mounted, carried, hung, clipped or attached to just about anything for optimal performance.

WHAT TO AVOID

The old adage that you get what you pay for is absolutely true with most gear and equipment, and a power bank is no different. Though one unit may be less expensive than another, you'll need to compare specs to see if it's really a great deal. Being that you'll be taking this device into the outdoors, its outer casing, its water-resistant properties and its overall durability must be top-tier. Inferior products could very well fail early in your outing and those dollars saved by going cheap would be meaningless.

Solar panels are an excellent option to consider.



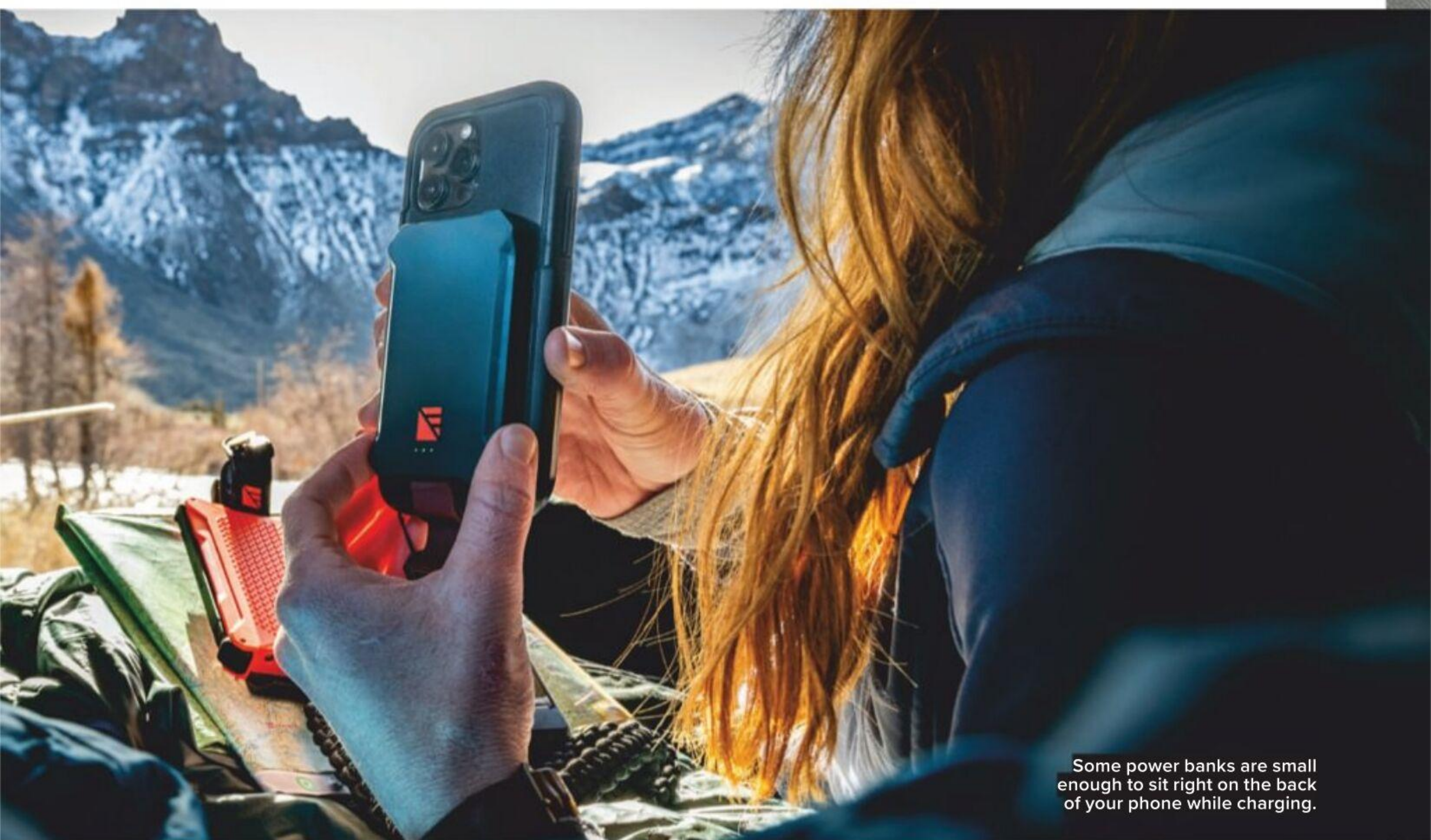
Additionally, you know your own electronic needs and it's best to opt for more power than less. So, if you're on

the fence whether to go bigger or not, choose the larger battery. Less charging will equal less downtime and more

time for you to tackle your tasks at hand.

POWER UP

Stopping the advance of technology is virtually impossible. It has saturated itself within every aspect of our lives, including outdoor recreation and survival. But with great convenience comes the need for constant power, and that's when the power bank steps up in a big way. These necessities are quickly becoming a staple of outdoor gear and they definitely need to be added to your constantly evolving, must-stock list for outdoor preparedness.



Some power banks are small enough to sit right on the back of your phone while charging.



**GET A GREAT
WORKOUT WHILE
ALSO GETTING FUEL
READY FOR THE
NIGHT!**

A log with a substantial diameter was cut in winter while testing the Hardcore Hammers Survivalist Hatchet. There is a wide "V" cut visible.

HEAVY CHOPPERS

Let the tools do the work

»»» BY REUBEN BOLIEU «««

IF YOU SPEND A FAIR AMOUNT OF TIME IN THE FIELD, ODDS ARE YOU'RE GOING TO NEED TO PROCESS FIREWOOD, BUILD A SHELTER AND PERFORM ANY NUMBER OF OTHER CHORES THAT WILL INVOLVE FORCIBLY SEPARATING PIECES OF WOOD.

Chopping requires a lot of energy compared to using a saw, which also means there is more danger involved. While an ax, hatchet, tomahawk and machete can be used as stand-alone tools, they are particularly effective for splitting and hacking.

SAFETY FIRST

There are very few minor injuries when

it comes to using an ax or other chopping tools. Always keep in mind the trajectory and direction of wood processing tools, as they can cause serious injuries. Follow these safety tips.

Hatchets and machetes can be particularly hazardous due to their short handles, which can cause injuries to the knees or shins during use. Longer-handled

axes and tomahawks are generally safer as they are less likely to bounce back toward the user.

When using a hatchet or short-handled tomahawk, it's safer to kneel down with the work in front of you.

Wear sunglasses or safety glasses to protect your eyes from airborne chips when chopping.

Always keep the ax parallel to the ground or a wooden stump

The Darien Machete showcases two distinct styles of stake-making. Instead of a typical sharpened point, its end features a simple diagonal chop, adding versatility to its functionality.



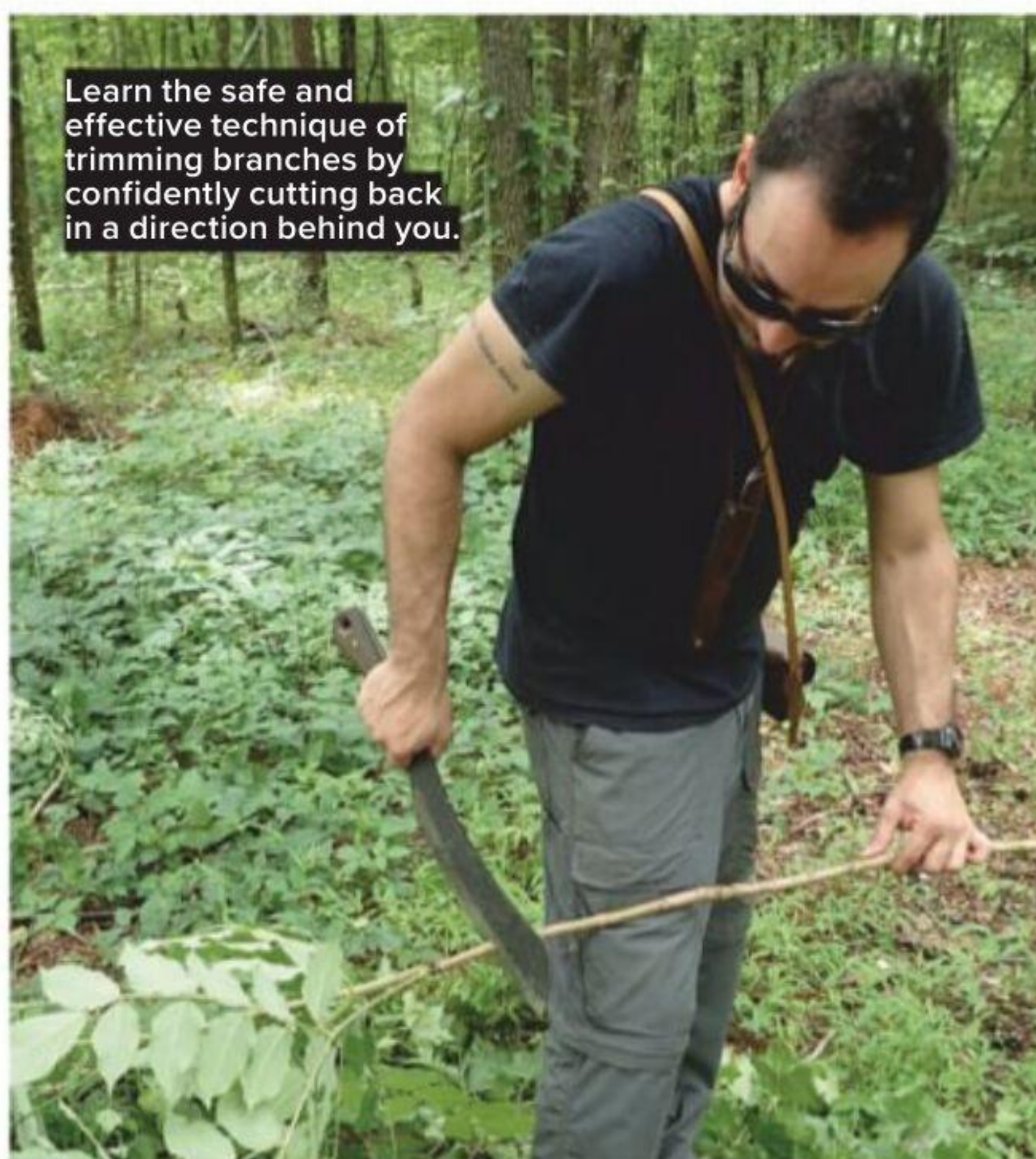
when splitting or chopping wood.

Remember to avoid using heavy cutting tools after dark if you can. It's important to always have a secure sheath for transporting any type of chopping tool or knife to ensure safety. Developing proper knowledge and skills will help you stay safe and improve your chances of survival.

AX USE

There is very little need to fell large trees these days in the majority

Learn the safe and effective technique of trimming branches by confidently cutting back in a direction behind you.



of wildernesses in the world. We'll stick with downed wood or smaller saplings for the sake of reality.

Always back up your work when chopping or splitting wood to ensure the best energy transfer and to prevent accidents. When chopping a small log on the ground horizontally, do so from a kneeling or sitting position. Keep the forearm and ax handle parallel at the moment of impact, known as the parallel plane, to prevent the

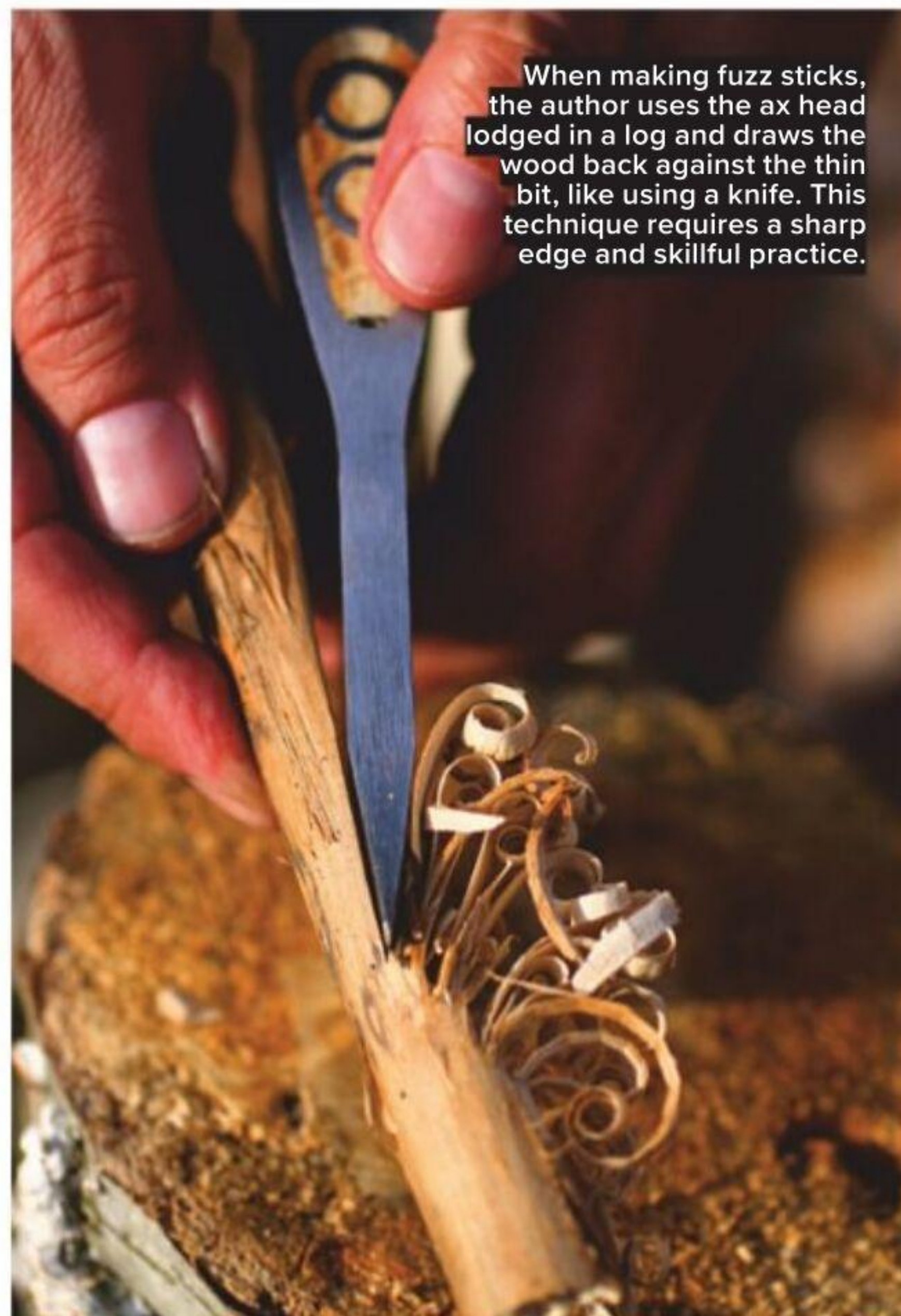
bit from swinging back toward you.

When chopping a log, cut it in a “V” shape at an angle, not straight on at a 90-degree angle. Make the width of the “V” cut approximately the same as the log’s diameter. Ensure that the handle of the ax is of adequate length for safety. The longer the handle, the safer the tool.

Practice accuracy and precision when using an ax. Remember, accuracy counts more than strength when chopping wood. With the proper techniques and practice, using an ax can be accurate and safe.

When limbing a tree, using a downed tree as a platform is safest. Stand on the side opposite the branches you’re cutting, using the trunk as a protective barrier. Carefully remove the branches close to the trunk and cut them in the direction of the tree’s growth.

The disadvantage of a lighter tomahawk is the insufficient weight required for traditionally splitting wood using an ax or hatchet. Typically, the log is placed vertically on a chopping block and then split using the tool’s weight and wedge shape. However, alternative methods exist no matter which tool you use. When selecting wood for firewood, it’s crucial to employ logical



When making fuzz sticks, the author uses the ax head lodged in a log and draws the wood back against the thin bit, like using a knife. This technique requires a sharp edge and skillful practice.

thinking. Do not opt for excessively thick wood; anything thicker than wrist or bicep thickness can be suitable as more significant fuel.

To safely and accurately split wood with an ax, you can use a technique called batoning. This method involves creating intentional splits in the wood with a beater stick rather than simply chopping away. Another method is sometimes called contact splitting. Hold the handle and the wood parallel, then place the ax bit in the top end of the small log and raise them several inches. Next, bring them both down together onto a chopping block to drive the bit into the



Here is another angle of the technique shown above.

KITCHEN MACHETE

In many developing countries, the machete is a versatile tool commonly used for various tasks, including butchering and kitchen duties. A visit to a marketplace in Southeast Asia or South America would quickly reveal its widespread use. It features a thin blade that is ideal for slicing, as well as a wide shape that makes it perfect for scooping up and transferring food, similar to a Chinese cleaver. Additionally, the back of the blade can be used for cracking bones, and the grip often transitions to a “pinch grip” when used for culinary tasks. Thanks to its wide profile, it excels at flattening meat and smashing ingredients such as garlic, ginger and nuts.

wood and create a split. Pull the handle and wood apart in opposite directions to finish the split, similar to opening shears. It's essential to avoid trying to chop into the top of the wood first, as this can be a common mistake when attempting this method for the first time. Instead, let the momentum of the ax bit do the work. Keep in mind that softer wood will be easier to split than harder, knotted-up wood, so patience and practice are key.

FEATHERING

Fine ax work should be limited to more minor splits for kindling. However, if you want to take it a step further and make feather sticks for fire, it's pretty advanced. To create fuzz sticks, you'll want to use the heel or beard of the tomahawk to chop into a log or stump about 1 1/2 to 2 inches deep. Once you have a good chop, keep the handle in place and draw back finger-thick pieces of dry wood against the sharpened

bit to make shavings. This technique requires a different skill set than what we're used to, so it does take time to master. Nonetheless, it's the easiest way to produce fine, thin wood shavings that make excellent tinder and kindling for starting a fire.

LONG BLADES

As a jungle adventurer, I have a strong appreciation for long-blade cultures. My fascination with these tools began in my



When using a large blade such as a parang to split wood, it is important to employ the same contact splitting method as you would with an ax.

childhood backyard. By the time I reached high school, my grandfather, brother, cousin and I could have started our own tree-cutting business. Following the chainsaw work, it was the responsibility of our younger generation to remove branches, chop the wood and process it. We used a hatchet, machete, jute twine and work gloves for these tasks.

In my later years, traveling to the Peruvian rainforest, Thailand, Malaysia, the South Pacific, and the Philippines gave me a solid education on long blades. I've used thin machetes, thicker bolos from the Philippines, parangs from Malaysia and Thai E-neps.

There's a simple rule for using all of them: Cut away from yourself.

I believe that being able to use a long-bladed knife, such as a kitchen or woods knife, is a skill that should be absorbed into American culture. This skill can easily transfer to any car-camping or backpacking adventure.

With a few quick pointers, any long blade can easily become a wood-processing, food-prepping knife. Treat a parang, bolo or machete as a food-prep knife and shelter-building tool. Think about it like this—you'll just have one tool to maintain and depend on.

The rules for limbing, chopping and contact



or baton splitting are similar to those for using an ax. Consider where the tool will contact if the project wood is cut through. What's the backstop?

Employ 45-degree angle chops as much as possible to chop efficiently and help guide the blade on either side of your body. Chop a long

a broomstick, chop it on both sides or work around the wood at a 45-degree angle.

Avoid chopping above eye level whenever possible.

TAKE THE TIME TO SHARPEN YOUR TOOLS BEFORE USING THEM. DOING SO IS SAFER—AS WELL AS MORE EFFICIENT—THAN USING A DULL EDGE.

Don't hammer-grip the tool. Use a pinch grip. A pinch grip is the same as making the OK sign with the handle between the forefinger and thumb. When chopping, the fingers grip the handle in one fluid motion.

pole by holding it at a 45-degree angle (off to your chopping side) and rotate the pole with every chop.

If the diameter is as thick as a broomstick or less, chop it on one side. When chopping a standing green sapling or branch thicker than

Remember to always make safety your top priority when you're using heavy chopping tools in the wilderness. Develop your skills, exercise caution and keep these tips in mind to ensure a successful and safe outdoor experience.

THE SELF-RELIANT LIBRARY

Keeping resources at your fingertips



BY JIM COBB



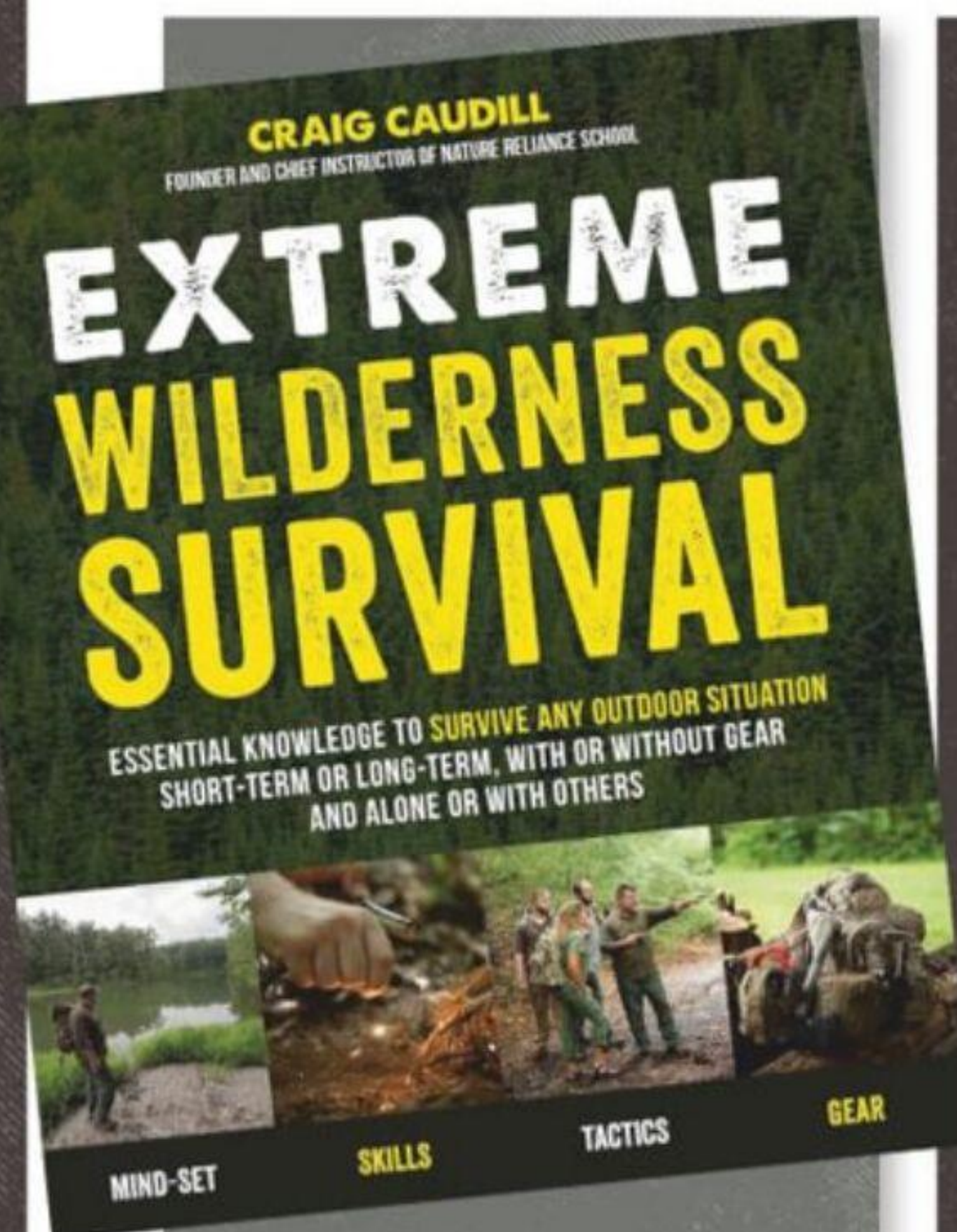
Reading is an excellent way to
spend some time in the forest.



THERE ARE MANY AREAS OF KNOWLEDGE THAT COME TOGETHER WHEN WE TALK ABOUT SELF-RELIANCE. THE UMBRELLA IS ACTUALLY PRETTY HUGE IF YOU STOP TO THINK ABOUT IT FOR A MOMENT.

There's gardening and food preservation, of course, but also wilderness survival, foraging for wild edible and medicinal plants, self-defense, and so much more. Classes, seminars and videos are all great resources for learning, but having hard-copy reference material at hand is indispensable.

The goal with this gear guide is to curate a collection of books that handle specific aspects of self-reliant living, with the objective being to have a small but well-rounded library. Buying the books is the easy part. This doesn't work like osmosis; you can't just stick a book under your pillow at night and wake up with all that knowledge having seeped into your brain. You're going to have to open each book and read it for that information transference to take place.



EXTREME WILDERNESS SURVIVAL

Craig Caudill has spent over 40 years learning and honing his outdoor survival skills, and he pours much of that knowledge and experience into this book. He spends a lot of time on developing the proper mindset, which is crucial. Caudill also covers hunting, fishing, tracking and even gear selection. All of this and more is explained in easy-to-understand language and illustrated with great photos.

Specifications

- Page count: 192
- Publisher: Page Street Publishing
- Publication date: 2017
- ISBN: 1624143369
- Dimensions: 7.4 x 0.65 x 8.95 inches

• **MSRP** \$25
naturereliance.org

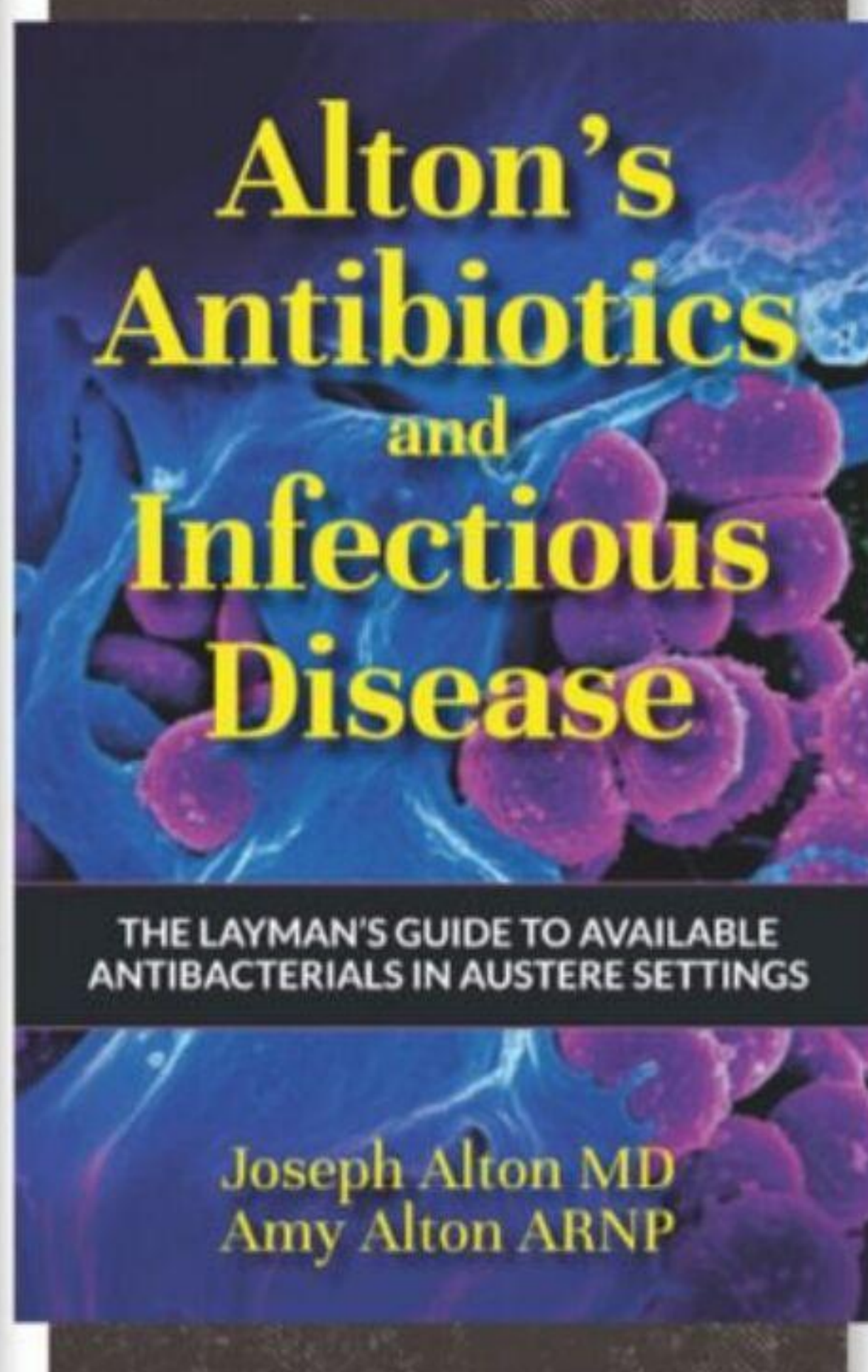
ALTON'S ANTIBIOTICS AND INFECTIOUS DISEASE

This is a one-of-a-kind book. It's meant to help those without medical training in survival, disaster and other austere settings where modern medical care isn't available. It's sort of a companion piece to the *Survival Medicine Handbook* covered at right. Here, the focus is on antibiotics and similar medications, covering how to source them legally and how to use them effectively.

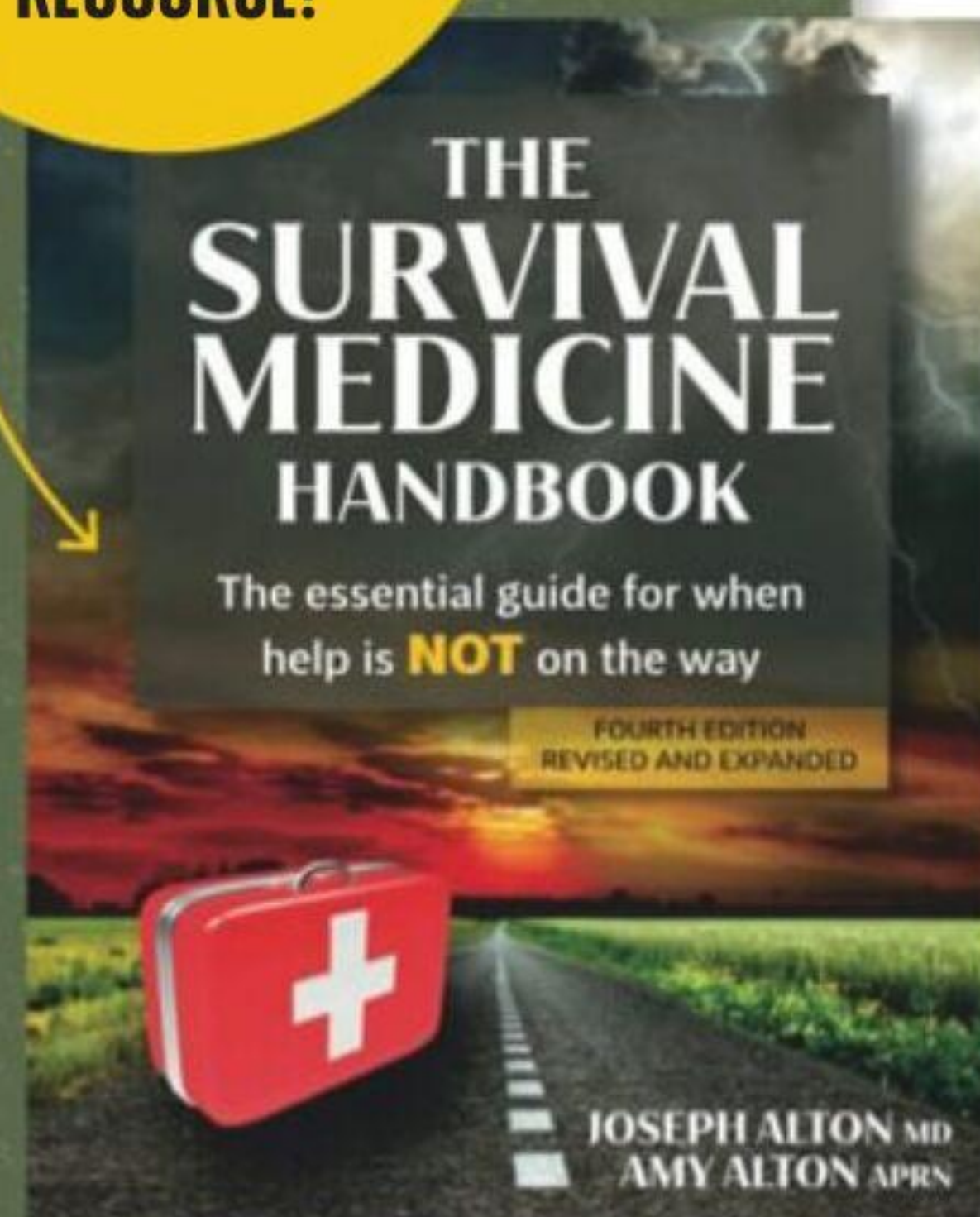
Specifications

- Page count: 322
- Publisher: Doom and Bloom LLC
- Publication date: 2018
- ISBN: 057841452X
- Dimensions: 6 x 0.73 x 9 inches

• **MSRP** \$25
store.doomandbloom.net



HANDLE MEDICAL EMERGENCIES LARGE AND SMALL WITH THIS MASSIVE RESOURCE!



THE SURVIVAL MEDICINE HANDBOOK

Medical emergencies can happen anywhere and it's important to know how to handle them. The idea behind this book is to provide the layperson with practical information on how to deal with a huge range of issues, from cuts and scrapes to pregnancy and childbirth, when proper medical care isn't available. Joe Alton is a licensed medical doctor and his wife, Amy, is an advanced practice medical nurse.

Specifications

- Page count: 694
- Publisher: Doom and Bloom LLC
- Publication date: 2021
- ISBN: 0988872501
- Dimensions: 8 x 1.57 x 10 inches

• **MSRP** \$34
store.doomandbloom.net

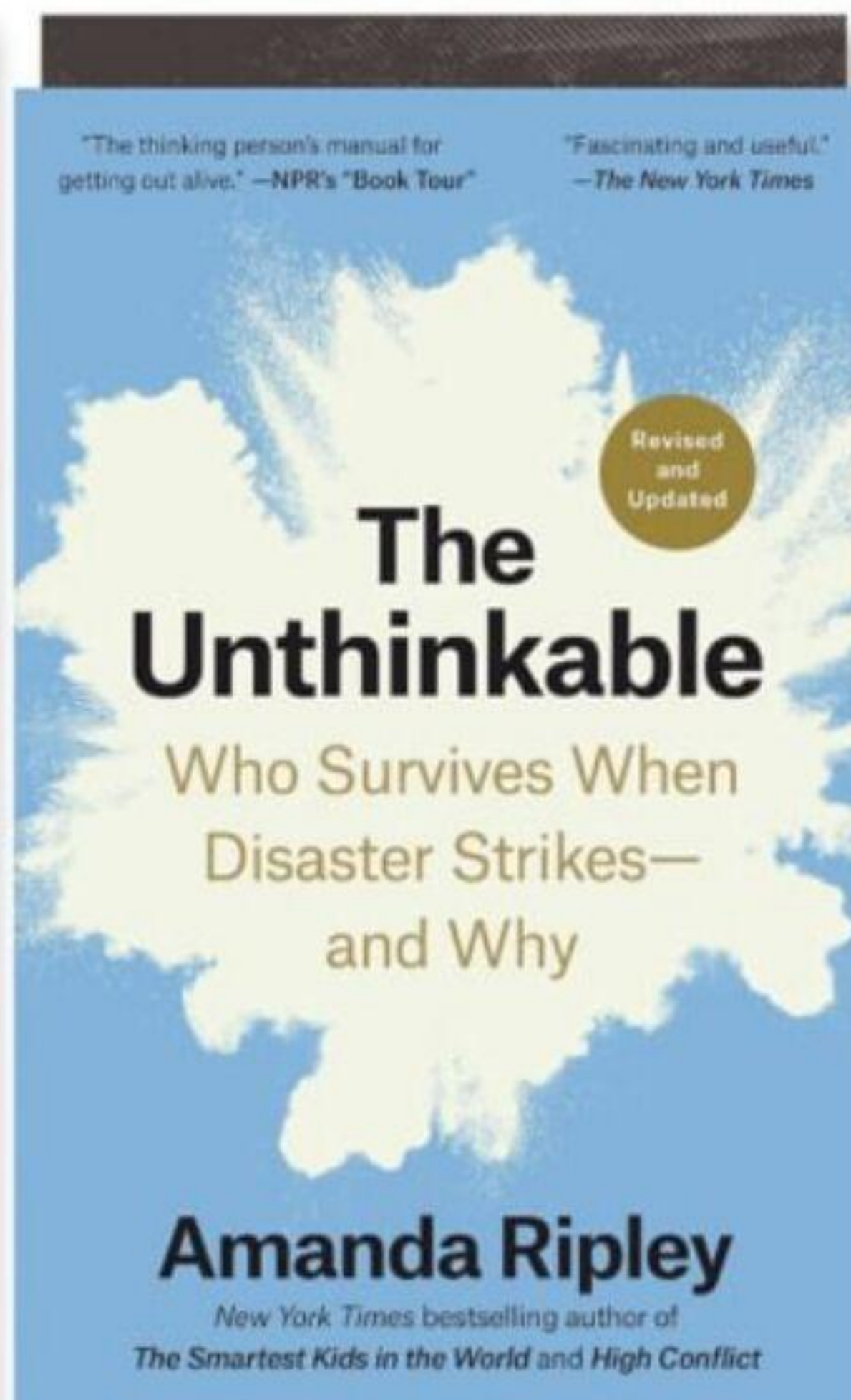
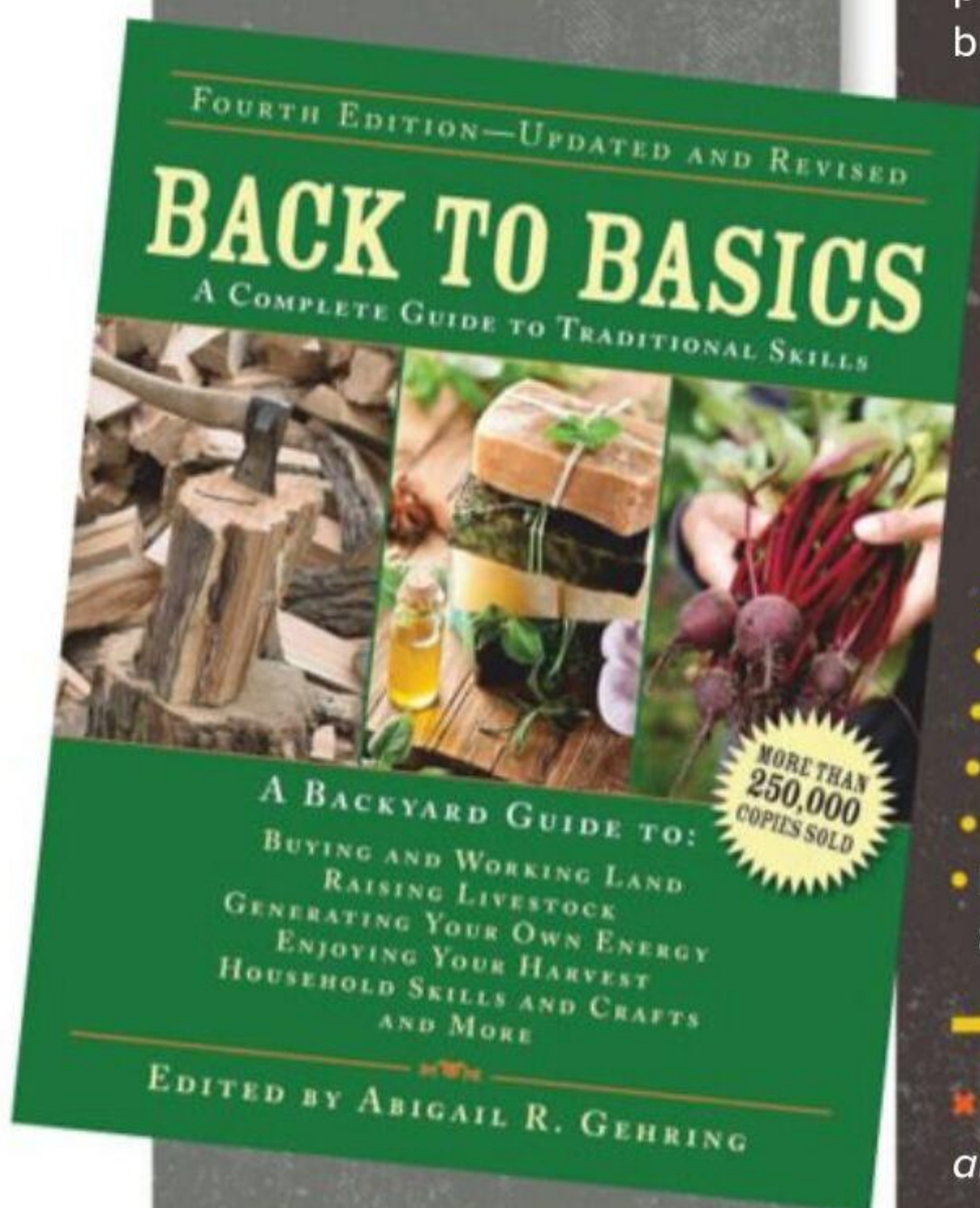
BACK TO BASICS: A COMPLETE GUIDE TO TRADITIONAL SKILLS

Here you'll find hundreds of projects such as dyeing wool with plant pigments, making various treats in the kitchen, weaving a rag rug and grafting trees—not to mention fun stuff like square-dancing and creating homemade toys. You might even learn how to make a log cabin or an adobe brick homestead. There are a ton of illustrations throughout to help drive home the lessons being shared.

Specifications

- Page count: 456
- Publisher: Skyhorse
- Publication date: 2014
- ISBN: 1629143693
- Dimensions: 8.5 x 1.1 x 11 inches

✶ **MSRP \$28**
[amazon.com](https://www.amazon.com)



THE UNTHINKABLE

Prize-winning journalist Amanda Ripley dives deep into the survival mindset and works to discover why some people make it through disasters where others don't. She discusses crowd psychology, how leaders build trust, and several other factors that can make the difference between surviving and perishing. This new edition includes discussion on slow-moving disasters like pandemics and climate catastrophes.

Specifications

- Page count: 432
- Publisher: Harmony
- Publication date: 2024
- ISBN: 0593796721
- Dimensions: 5.19 x 1.09 x 8 inches

✶ **MSRP \$20**
[amazon.com](https://www.amazon.com)

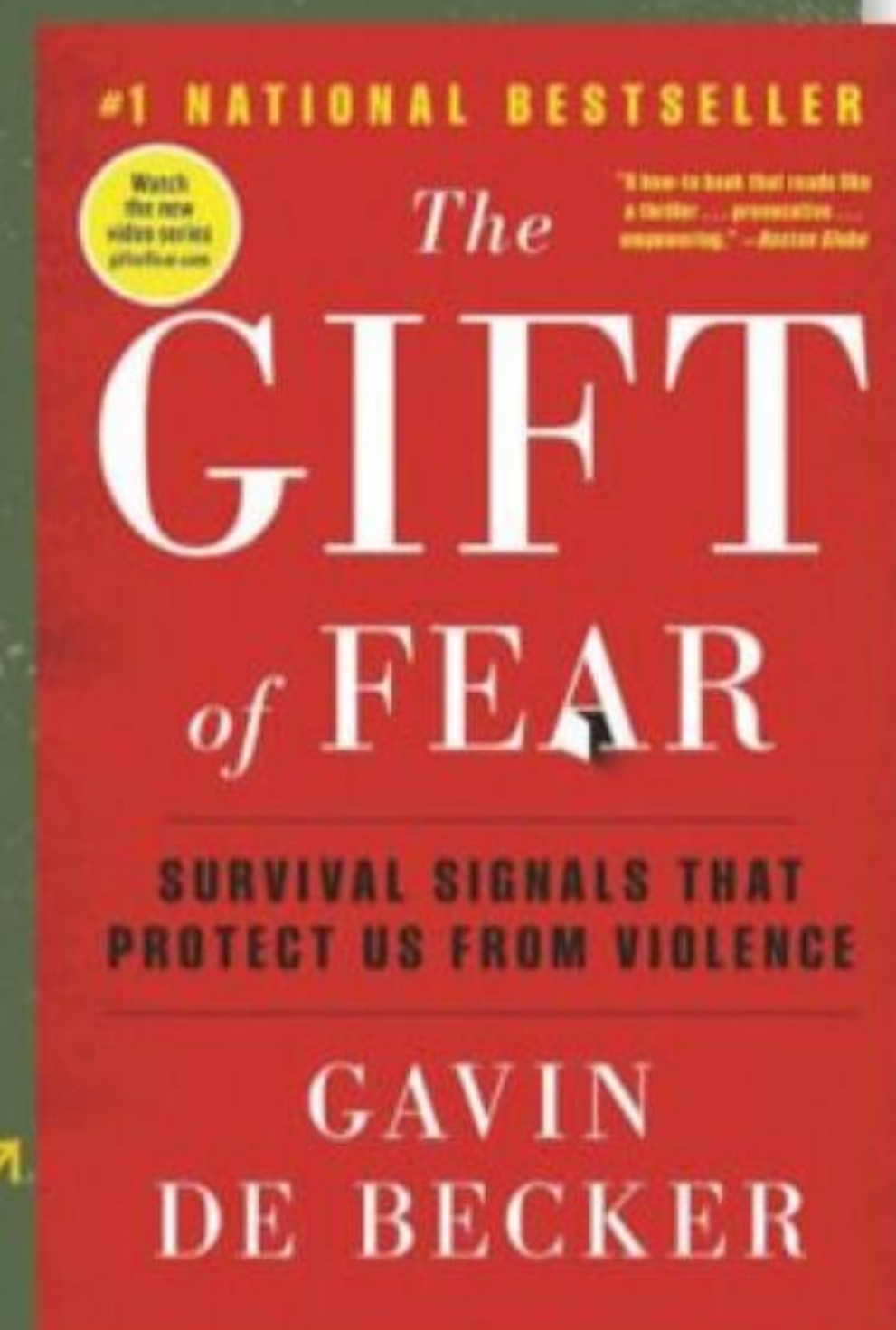
THE GIFT OF FEAR

In a nutshell, this book is about how to listen to your instincts and protect yourself from threats. Part of self-reliance is being able to keep you and your family safe. The author, Gavin de Becker, is a recognized authority on security and he shares a ton of insight on everything from threat analysis to self-defense.

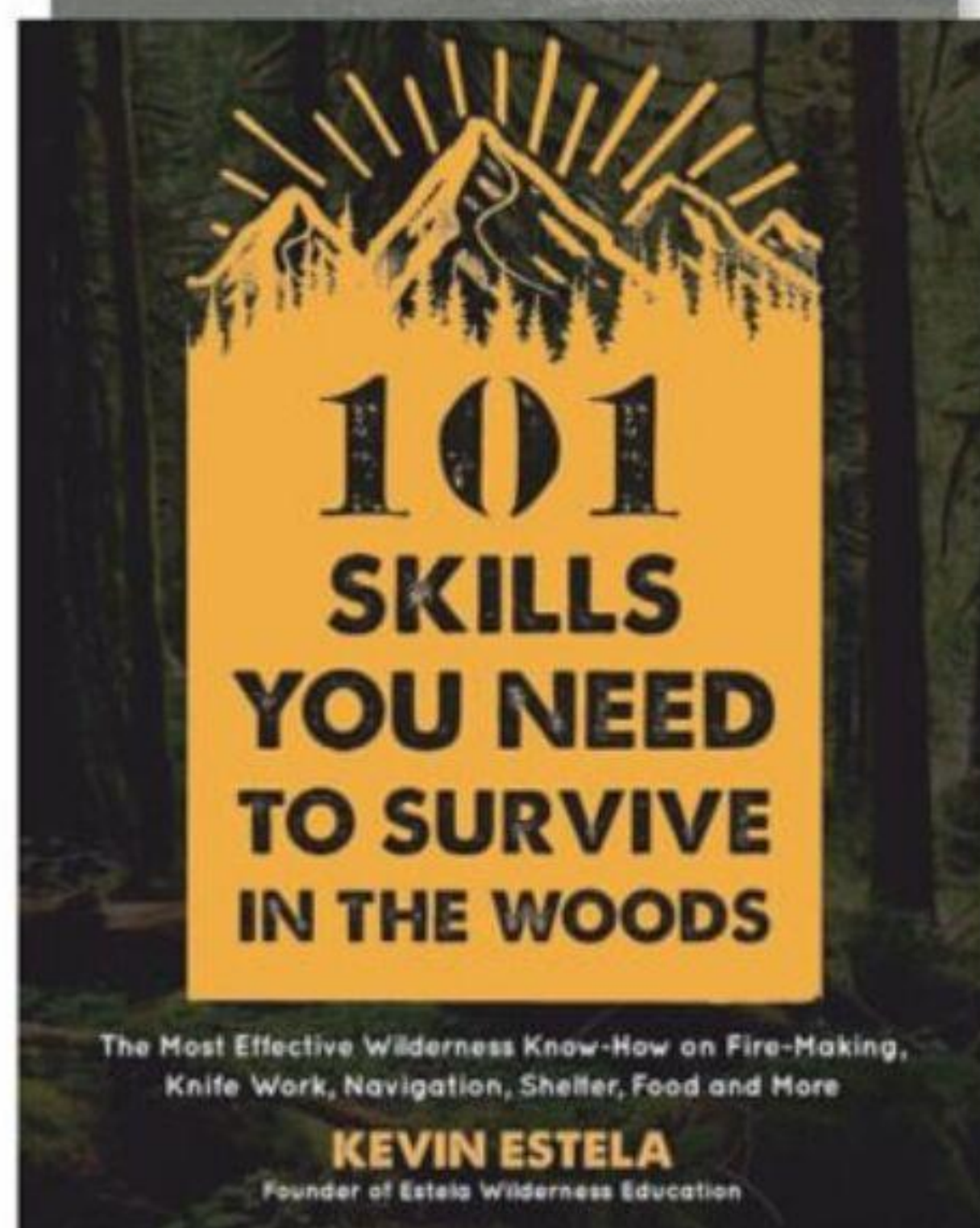
Specifications

- Page count: 400
- Publisher: Back Bay Books
- Publication date: 2021
- ISBN: 0316235776
- Dimensions: 5.5 x 1 x 8.25 inches

✶ **MSRP \$22**
[amazon.com](https://www.amazon.com)



**BY FAR, THE
EASIEST FIGHT TO
WIN IS THE ONE
THAT NEVER HAS TO
TAKE PLACE, RIGHT?**



101 SKILLS YOU NEED TO SURVIVE IN THE WOODS

Author Kevin Estela is a well-known survival instructor and sought-after speaker. He's been at this for a long time and truly knows his stuff. In this book, he's grouped outdoor skills into several categories, such as fire, shelter, cordage and water. In each section, there are 10 individual skills being taught. Estela covers everything from knots to friction fire, orienting a map to transpiration bags, and so much more. Full-color photos throughout illustrate the skills being taught.

Specifications

- Page count: 208
- Publisher: Page Street Publishing
- Publication date: 2019
- ISBN: 1624147429
- Dimensions: 7.35 x 0.45 x 8.95 inches

• **MSRP \$22**
amazon.com

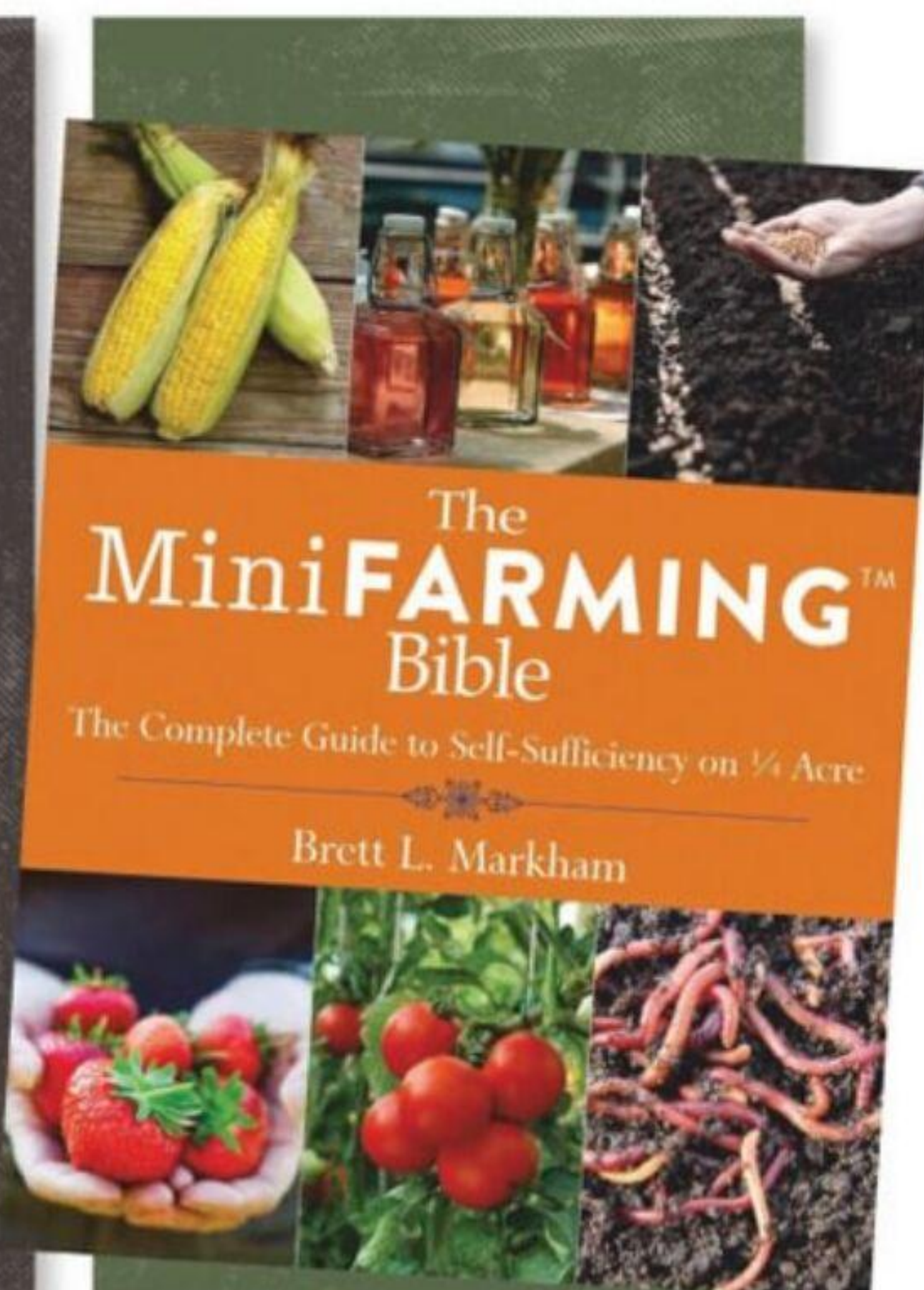
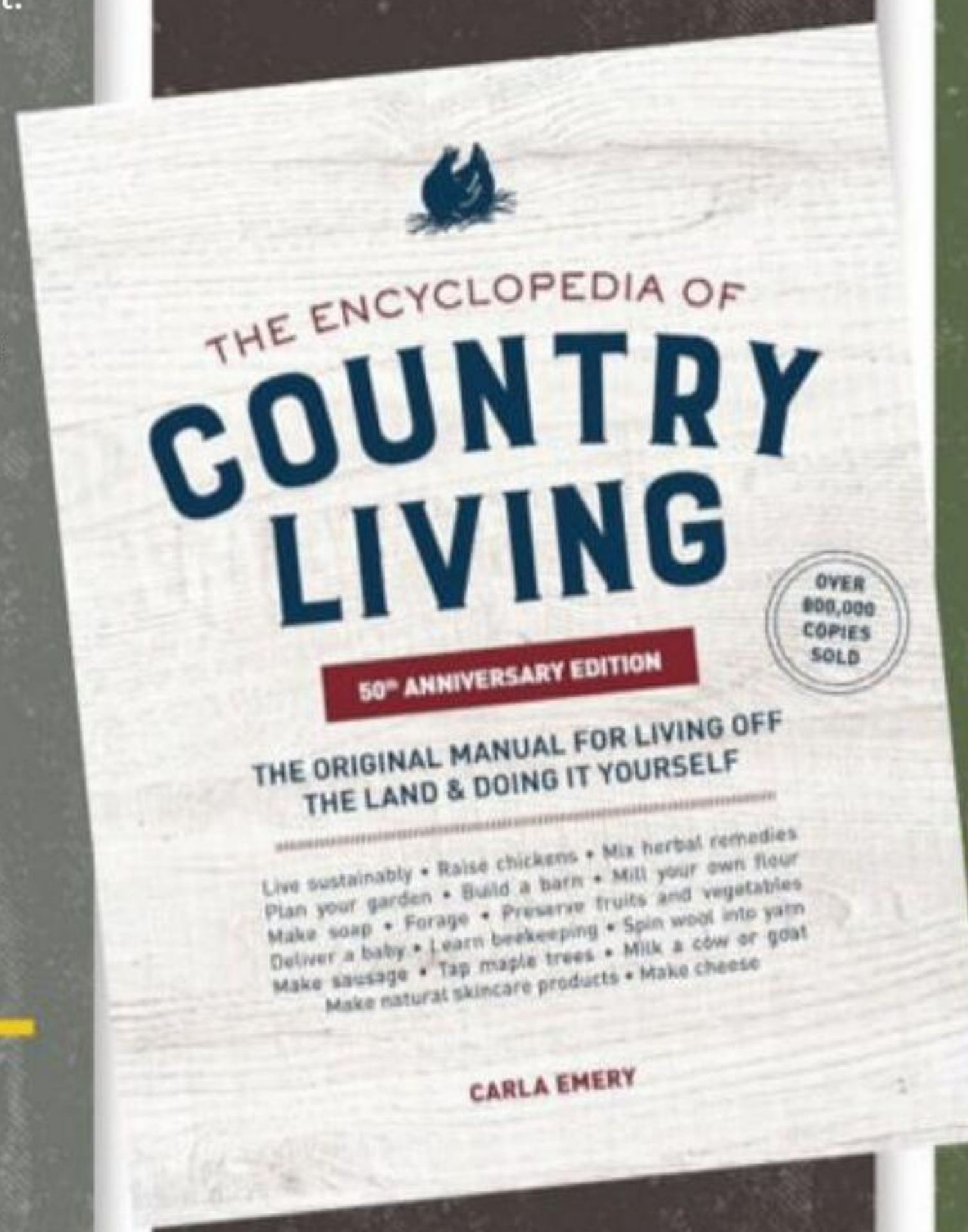
THE ENCYCLOPEDIA OF COUNTRY LIVING

Considered by many to be the leading reference book for homesteading, this volume is packed with valuable information on every one of its 900-plus pages. It's been in print for over 50 years. The number of topics covered is truly dizzying and includes gardening, animal husbandry, candlemaking, budgeting, food preservation and seed saving. This is truly a must-have for anyone serious about self-reliance.

Specifications

- Page count: 928
- Publisher: Sasquatch Books
- Publication date: 2019
- ISBN: 1632172895
- Dimensions: 8.49 x 1.95 x 10.86 inches

• **MSRP \$30**
amazon.com



THE MINI FARMING BIBLE

If you don't have a ton of land available, this book is for you. The subtitle is *The Complete Guide to Self-Sufficiency on 1/4 Acre*. Brett Markham is an engineer and a third-generation farmer. He's learned the hard way what works and what doesn't, especially when space is at a premium. Markham covers such topics as weed control, seed starting, pests and diseases, raising chickens, and making cheese.

Specifications

- Page count: 560
- Publisher: Skyhorse
- Publication date: 2014
- ISBN: 1629144908
- Dimensions: 8.5 x 0.9 x 11 inches

• **MSRP \$28**
amazon.com

PRACTICAL SELF-RELIANCE

No matter where you live, urban or rural, there are things you can do to foster a more self-reliant lifestyle. In this book, John McCann discusses recycling and repurposing, getting out of debt, sanitation and hygiene, transportation, and a whole lot more. With over 250 photos and diagrams, nothing is left to the imagination. The info here isn't just theory—McCann shares knowledge he's earned from a lifetime of experience.

Specifications

- Page count: 326
- Publisher: John D. McCann
- Publication date: 2014
- ISBN: 0990500608
- Dimensions: 6 x 0.74 x 9 inches

★ **MSRP** \$19

survivalresources.com



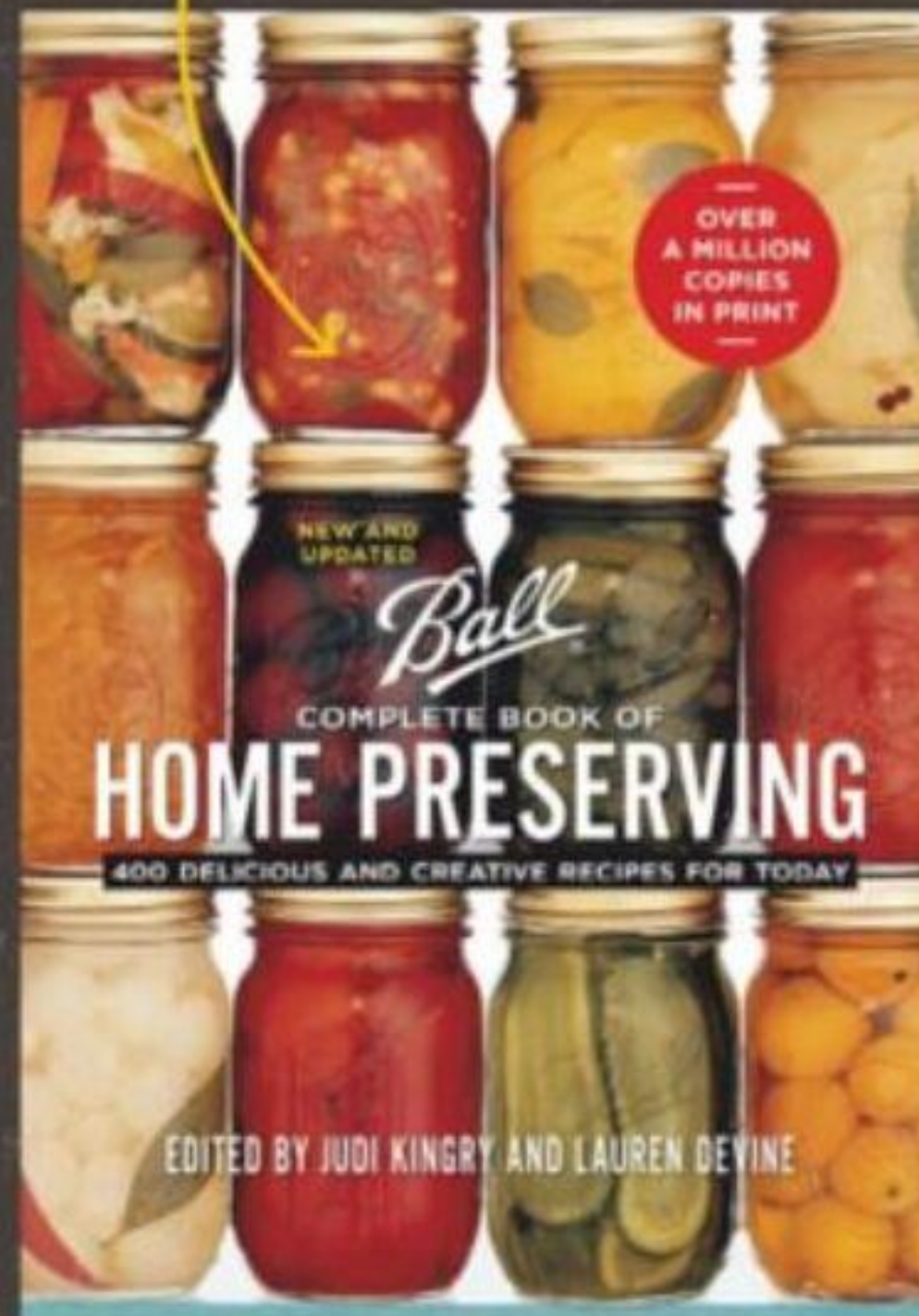
Practical Self-Reliance

Reducing Your Dependency On Others

John D. McCann



**YOU NEED TO BE
ABLE TO PRESERVE
YOUR HARVEST SO
YOU HAVE FOOD TO
EAT ALL YEAR!**



BALL COMPLETE BOOK OF HOME PRESERVING

Growing food is one thing, but keeping it for long-term use is quite another. Canning food at home allows you to control the ingredients, such as sodium and sugar, which is important for those with restricted diets. Ball has long been at the forefront of the food preservation industry and its team of experts has personally vetted each recipe.

Specifications

- Page count: 448
- Publisher: Robert Rose
- Publication date: 2024
- ISBN: 0778801314
- Dimensions: 7 x 1.25 x 10 inches

★ **MSRP** \$25

amazon.com

THE FORAGER'S HARVEST

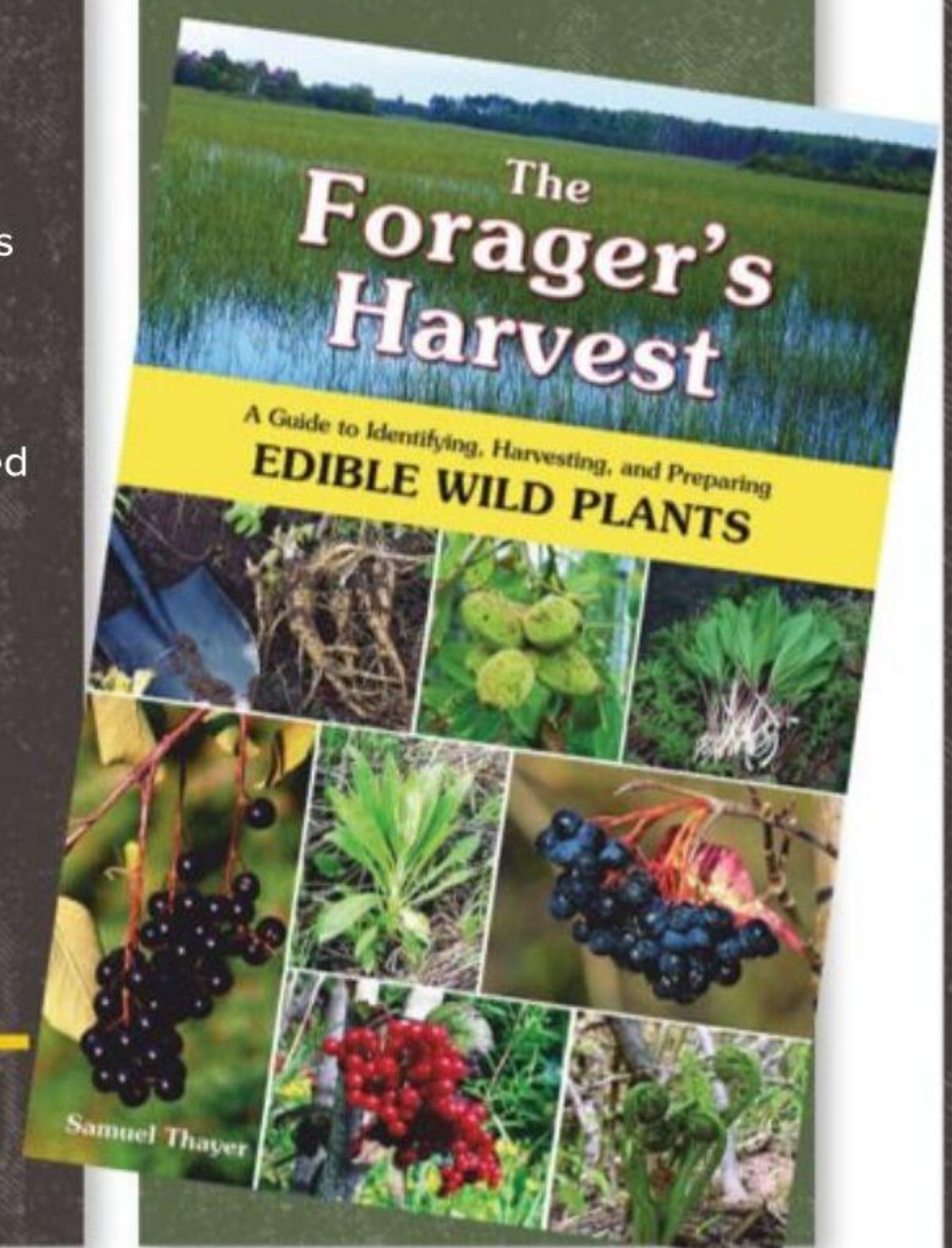
This is an ideal text for those who want to learn more about the wild edible plants in their area. Samuel Thayer covers 32 common plants that are found throughout the United States. For each, he provides color photos as well as detailed descriptions to help with positive identification. He also discusses when and how to harvest each plant, as well as how to prepare it for consumption.

Specifications

- Page count: 368
- Publisher: Foragers Harvest Press
- Publication date: 2006
- ISBN: 0976626608
- Dimensions: 6 x 0.8 x 9 inches

★ **MSRP** \$28

amazon.com



**A SHARP EDGE
WAS ONE OF
MANKIND'S VERY
FIRST, AND MOST
IMPORTANT,
TOOLS!**

You have the option to select either a Scandi or saber grind or even go for one of each.



SURVIVE AND THRIVE

Dive into the world of Reiff Knives

»»» BY REUBEN BOLIEU »»»

CO-FOUNDED BY THE VISIONARY BROTHERS STU AND BEN SHANK, THE BRAND'S ESSENCE IS DEEPLY INTERTWINED WITH THE RUGGED OUTDOOR TRADITIONS OF THE ALLEGHENY MOUNTAINS IN WEST VIRGINIA. THESE KNIVES ARE NOT MERELY TOOLS BUT A TANGIBLE LINK TO THE SHANK FAMILY LEGACY, METICULOUSLY CRAFTED FOR LONGEVITY AND TRUSTWORTHINESS.

Reiff Knives stands as a tribute to American ingenuity and the enduring principles of family. With a proud label of “Made in the USA,”

Reiff Knives embodies the quintessence of American manufacturing, sourcing materials domestically to guarantee a lifetime of exceptional quality.

CARRY NO CARES

Reiff’s knives are meticulously crafted in the USA with utmost care and dedication. The company takes pride in offering exceptional customer service, an

industry-leading Carry No Cares warranty, and a remarkably flexible return policy to back its products. With worldwide free shipping, Reiff assumes all risks to ensure customers can invest with confidence. The brand assures you that its coverage will be extended to cover any unforeseen circumstances.

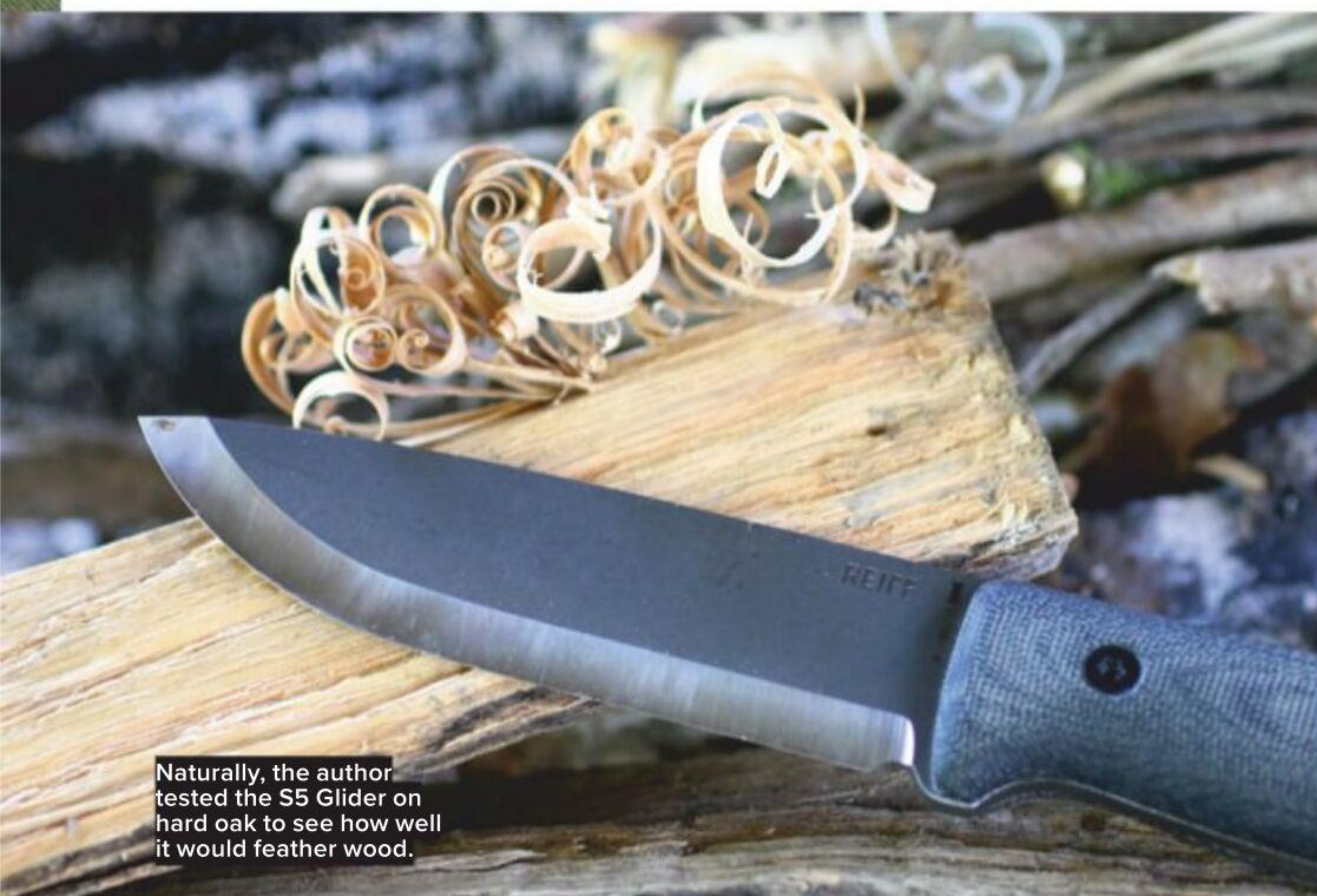
F5 FIELD SURVIVAL

The highly anticipated F5 Field Survival Knife is an incredibly versatile camp tool that stands out in Reiff Knives’ impressive lineup. The robust 5-inch blade is crafted from tough CPM 3V, an exceptional American-made super steel that measures a substantial 0.18-inch thick at the spine. This blade is capable of enduring demanding tasks and excels as an efficient cutting tool, thanks to its high saber grind, sharp edge and prominent tip.

Reiff Knives is committed to delivering products of the highest quality and comfort, designed for heavy use. The F5 lives up to the Reiff standards, featuring a full-tang handle that perfectly complements the 5-inch blade. This design achieves a well-balanced center of mass, creating a feeling of stability that rests right around the index finger. The canvas



The S5 Glider possesses a sturdy 90-degree spine for striking a ferrocerium rod and igniting fatwood feathers.



Naturally, the author tested the S5 Glider on hard oak to see how well it would feather wood.

Micarta handle scales offer a natural feel and secure grip, even in wet conditions, and are securely attached to the tang with three sets of coated stainless steel fasteners.

Users can expect unparalleled comfort and relief when holding the F5 for the first time. The F5 is designed to be used extensively and is not just decorative. Whether you need a reliable tool for camping or everyday use, its sturdy construction and ergonomic design are ready to meet your needs.

The F5 has two sheath options: black Kydex or brown Crazy Horse leather. Both are robust and resilient.

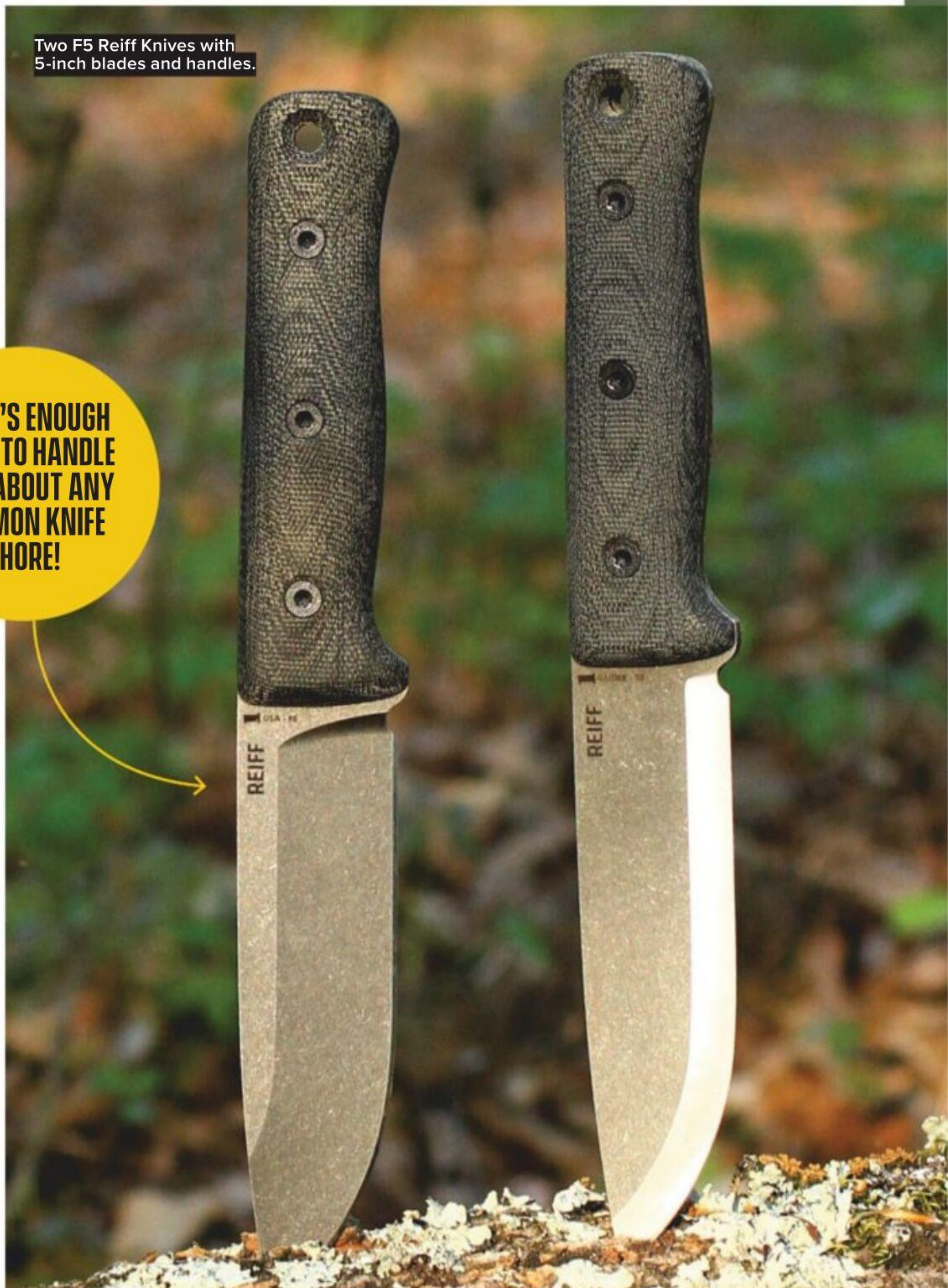
S5 GLIDER

The S5 Glider Bushcraft Knife is the perfect companion for all outdoor adventures. Crafted as the fraternal twin of the F5, the S5 Glider boasts distinctive features that set it apart as a formidable tool in its own right. Designed specifically for bushcraft tasks, this exceptional knife embraces a true Scandi grind on its blade, crafted from the ultradurable CPM 3V super steel—a testament to American craftsmanship.

Measuring 0.16 inches thick, the

**THERE'S ENOUGH
BLADE TO HANDLE
JUST ABOUT ANY
COMMON KNIFE
CHORE!**

Two F5 Reiff Knives with 5-inch blades and handles.



S5 Glider's blade effortlessly glides through wood with minimal effort, making bushcraft and whittling projects an absolute pleasure. The 5-inch long, full-tang handle

is impeccably balanced with the 5-inch blade, ensuring a perfect center of mass that rests right around the index finger.

After trying countless options, one can

imagine the feeling of finally discovering the perfect pair of hiking shoes—that sense of relief and comfort. That's the sensation one can expect the first time the S5 is held. The

F6 MAGNACUT

The Reiff Knives F6 MagnaCut is a modern survival knife boasting the revolutionary American-made MagnaCut steel, known for its exceptional toughness and edge retention. It mimics the dimensions of the original F6 with slightly larger dimensions than the F5's, sporting a 5.25-inch handle and 5.75-inch blade. It's available in two handle options—Canvas Micarta or G10, providing excellent grip and durability—in eight color options. The knife has a polished stonewash finish and three sheath options, enhancing its versatility. Designed and crafted in the USA, the F6 MagnaCut is an all-around robust tool, perfect for outdoor adventures, and is a significant upgrade in rust resistance and edge performance.

canvas Micarta handle scales offer a natural feel and a secure grip, even when conditions are wet. The scales are firmly secured to the tang with three sets of coated stainless steel fasteners to ensure lasting durability. Whether carving wood or prepping materials

for the next outdoor project, the S5 Glider is ready to be a trusted companion in the wild.

The S5 Glider's sheath options are black

wood and get to the dry part. I knew how well a Scandi could tackle this task, but I wanted to see the edge geometry of the saber-ground F5.

chopping. The F5 Field Survival Knife can chop. With the 5-inch handle and blade, choking back on the comfy handle will give you a heck of

A SCANDI GRIND BLADE TENDS TO BE A LITTLE BETTER FOR CHORES LIKE BATONING FIREWOOD TO ACCESS THE DRY INTERIOR SURFACES.

Kydex or brown Crazy Horse leather. These options allow you to tailor your style with the perfect sheath for your knife.

IN THE FIELD

I'm a woods guy, so it's no wonder most of my tool testing occurs in a camp or woods setting. However, I once read that a good, solid woods/camp knife should be able to slice a sandwich in half and reach the bottom of a jar of peanut butter.

I received the knives in early spring, and a warm cookfire was merited. The F5 Field Survival Knife helped break up and split some gnarly wood for a wood stove. It played double agent and was pushed into camp kitchen duties. It sliced peppers, onions and sausages, but this is more than just a kitchen knife.

Feather sticks are essential for a fire when the forest is wet. A good survival and camp knife should have an edge that can thinly slice

It didn't disappoint. The comfortable handle and sharp edge geometry made the CPM 3V blade quickly glide through wood.

Light chopping was on the docket. Yes,

a wallop. I sectioned off a small branch of witch hazel, which is superabundant in the Northeast. The one-piece made tarp stakes and camp implements in short order.



To access the dry parts for a fire, a knife is often necessary to baton wood smaller in diameter than a wrist. The thickness of a Scandi helps with the wedging effect.

SCANDI DELIVERS

Most people don't think of a Scandinavian (Scandi) ground knife as a good splitter. The truth is, the flats of the blade are thick with only one supersharp bevel. This adds to the wedging effect if you find the need to split wood with a baton for fire. We were about to grill over coals in Georgia, and a fire was needed. The S5 Glider was used for minor splitting and feathering. It wasn't a surprise when it handled the task like a boss. It wedged and split with minimal effort, and the hard white oak didn't stand a chance when it was time to make curly feathers.

The spine of the S5 Glider was tested to ignite feathered wood for a fire. The spine was sufficient, although it could have had more bite. The knife blade was batoned into a wood stump, and the ferro rod was pulled aggressively back against the spine to shower sparks onto the tinder. Houston, we have ignition!

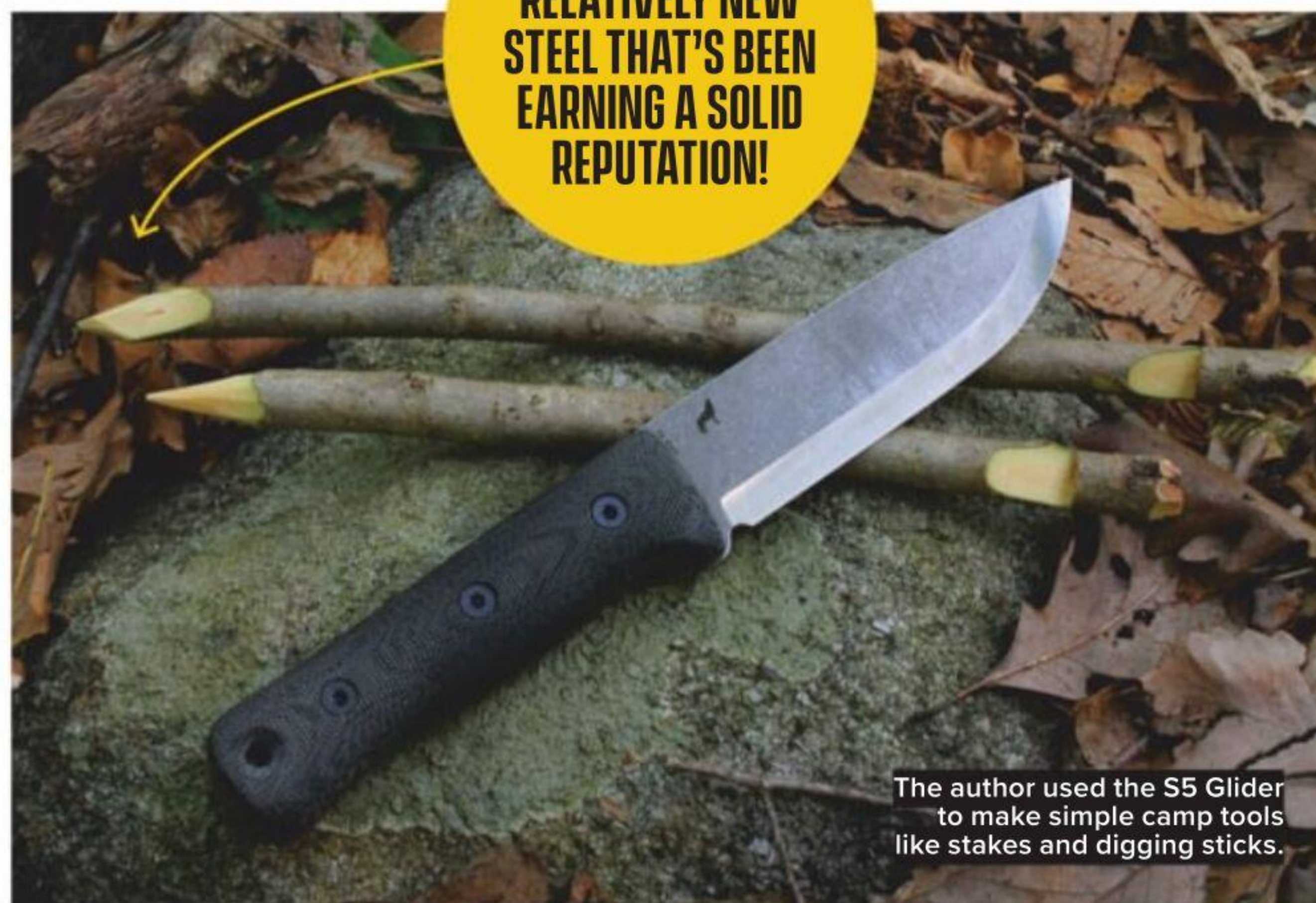
EXTREME TEST

I used the scientific "eeny meeny miny moe" selection, and the F5 Field Survival Knife was chosen for an extreme toughness test. I used the old ammo canister I had cached in the woods for the most extreme tests. Spoiler alert: I have yet to see

a Reiff Knife fail, so I wasn't surprised.

This test involved heavy-duty leather gloves and a stout beater stick. I double-gripped the F5 and plunged it into the ammo canister—hard. I used the stout stick to hammer the butt, driving the blade deep

MAGNACUT IS A RELATIVELY NEW STEEL THAT'S BEEN EARNING A SOLID REPUTATION!



The author used the S5 Glider to make simple camp tools like stakes and digging sticks.



The F5 Field Survival Knife passed an extreme toughness test with flying colors, remaining undamaged after being forcefully driven into an old ammo canister.

in the canister. For good measure, I levered the knife back and forth and allowed the tough CPM 3V blade to cut deeper. I pulled the blade out to not be surprised: zero damage.

Reiff Knives' F5 Field Survival and S5 Glider knives are exceptional companions

for any outdoor adventure. They showcase American craftsmanship, durability and practical functionality. They set a fairly high standard for dependable outdoor tools that stand the test of time.

Find these knives at reiffknives.com.

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